Selective Dry Cow Therapy (SDCT)

One of the steps of the original 5 step plan for mastitis control was Antibiotic Dry Cow Therapy (DCT). DCT has an important role to play in clearing out infection from the previous lactation. However, not all cows need DCT as they have not had an infection in their previous lactation and have maintained low SCC throughout their lactation.

Increasingly everyone in the veterinary and farming worlds are coming under pressure to reduce antibiotic usage. Responding to this pressure, a number of milk buyers including Arla have started implementing Selective Dry Cow Therapy (SDCT) on their supplier’s farms. SDCT means DCT is only used in cows that need treatment and the rest of the cows receive treatment teat sealant only i.e. no antibiotics. However SDCT is not for everyone and the following criteria must be met before considering undertaking it;

1. Must milk record so regular individual somatic cell counts are available. Or at least have individual cow somatic cell count data for the last 3-months of each lactation.
2. Accurate clinical mastitis records
3. Bulk milk SCC of <250,000 cells/ml
4. The exact protocol for each farm will vary and it is essential that vet advice is sought before commencing SDCT

Furthermore the individual animal must have

- No clinical cases of mastitis in her lactation
- A low individual cell count of less than a threshold that is determined based on the level of infection in the herd (e.g. 150,000 cells / ml) for the last 3-months milk recordings.
- Treatment with teat sealant to prevent new infections during the dry period. It is essential this is administered using a very hygienic procedure to ensure infection is not introduced with the teat sealant.

The last point is very important as if only teat sealant is being used it is the only protection the udder has against infection. If infection is introduced with the teat sealant then severe mastitis can result. Therefore hygiene around the application of teat sealant is vital;

- Cows should be dried off in a clean parlour after milking
- Gloves should be worn
- Udder should be clean and dry
- Teats should be disinfected front teats first and then back teats
- Teat end should be scrubbed with cotton wool soaked in surgical spirit
- Teat sealant should be applied back teats first and then front teats to reduce risk of cross contamination

If you would like a refresher, or an on farm demonstration of administering dry cow tubes or sealant please contact MBM Veterinary Group.

The advantages of SDCT are

1. Save money as not all cows get DCT
2. Only cows that need antibiotics are treated with them
3. Reduced antibiotic usage on farm
4. Reduced risk of antimicrobial resistance on farm
5. Reduce the risk of severe toxic mastitis in early lactation. There is evidence that unnecessary antibiotic DCT in cows that are uninfected at dry-off can increase the risk of severe mastitis in early lactation by removing the commensal (‘friendly’) bacteria from the udder.

It seems probable there will be a time when SDCT is enforced on farms, so why not be proactive and get ahead of the game and contact MBM Veterinary Group for more details. We already have one herd using SDCT very successfully.
Scours in calves can be broken down into nutritional scours and infectious scours. Nutritional scours are most commonly seen in non-suckled calves where there can be inconsistency in feeding times/concentrations/temperature or due to a shortage of forage alongside concentrates. Infectious scours are seen commonly in both suckled and dairy calves and require planning and preparation to avoid.

Infectious scours are the most common and can be caused by bacteria, viruses or parasites. Viral and parasitic scours will not be treated by antibiotics and are much better to be prevented than treated as they have a long term effect on performance even if/when the calf seems to have recovered. Bacterial scours can be treated by antibiotics but are associated with high mortality so again the aim must be prevention.

**HOW TO PREVENT**

1. **KNOW WHAT CAUSES YOUR SCOUR**
   To know what pathogens your calves are exposed to we look at previous years history for your farm, the age at which your calves are taking scour (needs recorded), the severity of the scour, and TAKE SAMPLES BEFORE YOU TREAT

2. **MANAGE THE ENVIRONMENT**
   Whether parasitic, viral or bacterial, scours are highly infectious, one scouring calf can contaminate your entire shed; calf cows in a clean disinfectable area and dispose of cleansings, keep fresh calved cows in a clean well bedded environment separate from main group for 1wk-2wk post calving. If a calf scours, limit that calf within the group (pen up in corner) so it isn’t free to continue spreading disease through rest of pen, bed up (can add disinfectant powder such as Stalosan-F) and keep that entire group separate from rest until 3 days after resolved then clean out pen, any new calvers during this time need to avoid this area completely if possible until it has been fully cleaned.

3. **COLOSTRUM; QUALITY & QUANTITY**
   Even with the precautions above, once a calf has started shedding scour it is very hard to prevent exposure of other calves unless you have very adaptable housing facilities. Good colostrum management is therefore essential to give your calves a chance of defending themselves when exposed. Colostrum is the calves only source of antibodies to protect itself for the first 3 weeks of life. Calves need to consume a minimum of 3ltr of dam’s colostrum in the first 6hrs (after 6hrs the gut closes so antibodies cannot pass into blood stream), should Dam’s colostrum not be available we recommend keeping 1 packet of Vetsonic immucol colostrum replacer for emergencies (this is the only ‘colostrum replacer’ on the market in the UK that contains antibody levels equivalent to real colostrum), can be found at the practice.

4. **PREVENTATIVE TREATMENTS**
   If we know your scour history we can take steps to prevent scour occurring to the same level. Most commonly cryptosporidiosis and rotavirus are the culprits, with Ecoli scours most commonly causing calf death. We can MASSIVELY increase a calves protection via colostrum to rotavirus, coronavirus and Ecoli by vaccinating the cows with Rotavec – a single intramuscular injection given 4wks-3mts pre calving, we strongly advise this for any herds calving indoors where infection build up is unavoidable. Where cryptosporidiosis has been a problem in the past it inevitably will continue as the parasite is extremely resistant to disinfection, use of Halocur daily for the first 7 days of life in every calf that calf within the group (pen up in corner) so it isn’t free to continue spreading disease through rest of pen, bed up (can add disinfectant powder such as Stalosan-F) and keep that entire group separate from rest until 3 days after resolved then clean out pen, any new calvers during this time need to avoid this area completely if possible until it has been fully cleaned.

5. **BVD STATUS/SITUATION**
   Where calves are being exposed to BVD virus through a PI or a bought in transiently infected calf, they will effectively be immune-compromised. Healthy calves exposed to BVD virus suffer inflammation of the gut and respiratory tract, and reduced efficacy of vaccines (BVD is distracting the immune system), this results in much higher cases of severe scour and pneumonia. If your herd is ‘not-negative’ contact the vets to work towards negative status which should improve general calf health.

### BREAKDOWN OF CURRENT UK SCOUR PATHOGENS

- **Rotavirus**: 18%
- **Coronavirus**: 33%
- **E. coli K99**: 38%
- **Crypto**: 4%
- **Coccidiosis**: 7%

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**FROM APRIL 2016 IT IS COMPULSORY FOR ALL DOGS IN SCOTLAND TO BE MICROCHIPPED**

**MBM Veterinary Group**

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