Scours in the young calf

Biggest cause of losses in calves, responsible for 80% of pre-weaning deaths. One-third of calves affected by scour.

▲ Nutritional scour can develop from many factors including milk fed at the wrong temperature or concentration if they are bucket fed calves or fast milk flow from poorly designed teats. If the esophageal groove doesn’t close properly instead of going into the abomasum, milk goes into rumen. There are no digestive enzymes here, so milk sours and causes digestive upset.

▲ Viruses such as rotovirus or coronavirus—often a yellow or white scour from undigested milk. Highly contagious and resistant to many disinfectants.

▲ Bacteria such as E.coli may cause mild scour or some strains of the bacteria cause severe damage to the gut and an acutely sick calf, which can quickly lead to death.

▲ Cryptosporidia – watery scour containing mucous (cryptosporidia is a parasite that affects the gut). More common in young calves often in combination with another cause of scour.

▲ After weaning coccidiosis is the commonest cause (see Calf Card: Coccidiosis)

Many bacteria and viruses are present on farms all the time, but only take effect when calf is stressed or there is an overwhelming challenge.

What are the symptoms?

■ Very loose dung due to loss of fluids.
■ Dehydration – seen when fluid loss reaches 5% of bodyweight.
■ At 10% fluid loss, calf is depressed, has sunken eyes, dry skin.
■ At 15% death is very likely.
■ Try the skin test: pinch a fold of skin just above calf’s eyelid and release. If, after five seconds, it stands like a ‘tent’ shape, the calf is dehydrated.
■ Calf stops sucking.
■ Loss of salts - electrolytes
■ The calf often develops acidosis which increases breathing rate, leads to a dull, sleepy calf with a drunken, wobbly walk.
■ Poor circulation leads to a drop in body temperature and the calf goes into a state of shock.

Effects?

■ Death can occur in untreated cases.
■ Calves susceptible to other infections.
■ Damage to lining of gut wall affects digestion of feed and liveweight gain.
■ Calves become poor doers.
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TREATMENT / PREVENTION / MANAGEMENT

Top tips for preventing scour

1. **If more than 5% of calves are scouring or you have calf deaths call your vet.** Take samples of scour to test for cause.
2. **Your vet may advise treatment with antibiotics.**
3. **Isolate sick calves** (SUCKLERS: and their dams) to prevent spread of infection (separate pen or field). Nursing such as providing a heat lamp, away from draughts and a dry bed will also help.
4. **Disinfect pens, feeding and dosing equipment;** wear disposable gloves when dealing with sick calves and treat after dealing with healthy stock. Some causes of scouring in calves may also cause disease in humans, so practice good hygiene.
5. **Calves are thirsty,** but too sick to drink - so may need stomach tubing to restore fluids, energy and salts. A 50kg calf needs at least 5kg of fluids to correct just to correct a 10% deficit, so be prepared to give fluids 3-4 times a day to correct and maintain levels.
6. **Use an electrolyte (salts) solution** to replace lost salts and to help the calf correct the acidosis. Use electrolytes that do not lower the pH of the abomasums further. These are available to add directly to milk or for mixing with water.
7. **Sick calves need plenty of energy,** so removing milk for long periods should be avoided. However do not feed water-based electrolytes with milk. Consider using an electrolyte that can be added directly to milk.
8. **Identify and record calves** which have needed treatment for scours. Useful for later evaluation if re-treatment needed. (SUCKLERS: identify cow as well.)

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**Rehydion gel® Formula Plus** is an innovative oral rehydration product that can be added to milk. It has a fast, guaranteed milk clotting, corrects acidosis and is a very high energy source. Excellent palatability and efficient dilution in milk allows weight gain to continue, even in cases of severe scour. The product’s gel format makes it very easy to mix and the bottle makes it simple to measure a precise dose. In beef systems it can be given neat, with no need for the calf to be separated from its dam. Rehydion gel® Formula Plus is the right choice for efficient and cost-effective oral rehydration.

**Rotavec Corona - prevent infectious calf scours:**
- On many farms, normal colostrum does not provide sufficient antibodies to the calf
- Vaccination of cows with one-shot of Rotavec-Corona before calving
- Helps to ensure high levels of antibodies against rotavirus, coronavirus and E.coli K99 in the colostrum
- Colostrum with Rotavec-Corona can deliver up to 60 times the antibody level than pastes per unit volume.
- Cows calving over a nine-week period can all be vaccinated on the same day
- Up to 28 days continuous protection against infectious scours

A range of management regimes and treatment protocols can be used to minimise the threat of infection and treat disease. Always consult your own vet for information and advice on what is most suitable for your unit.