

## Vet's Corner: Oral Fluid Treatment for Calf Scours

Last month's Vet's Corner article stressed that early intervention was the key to success in handling uterine torsion dystocia cases. This month, early intervention is stressed as the key to success in handling calf scours. As dehydration and disease progress, the calf becomes lethargic and will not suckle milk or electrolyte solution voluntarily. When in doubt if a calf is dehydrated enough to warrant oral fluid treatment, remember that a calf with normal hydration will rapidly excrete excess water and electrolytes so you can cause no damage by over aggressive treatment.

Few pathogens that cause baby calf scours will be eliminated by oral antibiotic therapy. Antibiotics kill bacteria, so they are ineffective against Rota and Corona viruses, and Coccidia and Cryptosporidiosis protozoa. Most enteric E. coli and Salmonella have developed antibiotic resistance and require systemic treatment to protect vital organs instead of oral treatment. So the calf raiser's first thought should focus on proper rehydration of the calf instead of looking for the magic antibiotic pill to stop the scours.

A scouring calf with mild symptoms of dehydration is a good candidate for oral electrolyte feeding. Skin over the eye will tent for no more than 3 seconds, the calf will arise and have a suckling reflex, mucous membranes are moist, and extremities are still warm. Some guidelines for oral treatment follow:

1. *Don't mix the electrolyte solution into milk replacer*, most commercial packages contain bicarb which interferes with milk clot formation in the abomasum.
2. *Feed 2 liters of electrolyte solution*, which is about 5% of a normal sized Holstein calf's weight, at a time. The abomasum holds 2 liters and overfilling will cause escape into the undeveloped rumen compartment and not be absorbed.
3. If the calf will not suck on the first try, feed the electrolyte solution with a stomach tube, but realize that much of the fluid is going to the rumen. If the calf is not sucking 6 hours later, resort to SQ or IV therapy immediately.
4. Most commercial preps contain high levels of electrolytes and energy and are great for initial treatment. However, *they should not be the only source of fluid or fed more than 24-48 hours* or salt poisoning may occur. Switch to isotonic electrolyte solutions after 24-48 hours.
5. *Continue feeding normal levels of milk replacer*. While it is possible that milk feedings will continue diarrhea output, milk is needed for nutrition and the oral fluid therapy will maintain hydration if the calf continues to scour. The goal is to have a healthy, hydrated calf not just to dry up the scours by starving the calf.
6. *Feed the electrolyte solution 1-2 hours after milk replacer feeding* so that the abomasum volume of 2 liters is not exceeded.
7. Most calves only need two feedings of electrolyte solution daily. If skin tenting and attitude do not improve, move on to SQ or IV treatment.

Kent E Henderson, DVM  
Northwest Veterinary Associates, Inc.  
[cowdoc@adelphia.net](mailto:cowdoc@adelphia.net)