



MEDIA RELEASE

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Emerging clostridial disease targets calves

Greensboro, NC (August 13, 2008) –*Clostridium perfringens* Type A continues to garner researchers' attention as a potential emerging pathogen. It's often associated with severe calf disease, such as abomasitis, with fatality rates varying from 5 to 50 percent.

"There are as many questions about this disease syndrome as there are answers," says David Van Metre, DVM, College of Veterinary Sciences, Colorado State University. "It's a multifactorial disease. No one has found the complete set of factors that cause it."

C. perfringens Type A is the most commonly isolated infectious agent in abomasitis cases, according to Van Metre, who presented to attendees during a symposium at the Western Veterinary Conference in Las Vegas, Nev.

Abomasitis occurs with an acute onset of gas accumulation in the abomasum. It typically occurs in calves less than two weeks of age. Clinical signs can include rapid progressive bloat and shock, colic, hypersalivation and a distended abdomen. Treatments may include penicillin, antitoxin serum, fluid support, oral adsorbents and oral antibiotics.

"Unfortunately, most calves die acutely," says Doug Scholz, director of veterinary services for Novartis Animal Health. "Most times, the calf appears fine in the morning. When you come back that evening, you find a dead bloated calf."

Van Metre recommends focusing prevention measures on enhancing immunity and using feeding practices that inhibit proliferation of *C. perfringens* in the gut. He recommends:

- Using good colostrum and milk/milk replacer hygiene
- Keeping consistent feeding schedules for dairy calves and maintain consistency in milk/milk replacer composition and temperature
- Avoiding feeding long-stem forage too early
- Whenever possible during severe weather, encourage calves and dams to stand up to limit milk engorgement by the calf after the weather passes
- Making sure animals have adequate copper and selenium status

If you are experiencing significant calf losses, vaccination may be an option to consider. Van Metre shared results of a trial he conducted with **Clostridium Perfringens Type A Toxoid** in a commercial dairy herd.

The Colorado State University researchers randomly assigned cows and pregnant heifers to a control or vaccinate group. Vaccinates received two doses of **Clostridium Perfringens Type A Toxoid** in late pregnancy. The study goal was to measure *C. perfringens* Type A alpha toxin titers in vaccinated dams and the calves fed that colostrum.

“The cows and heifers receiving two doses of the vaccine generated significantly higher antibody titers to alpha toxin one week after the second immunization than did controls,” says Van Metre. “Additionally, the calves ingesting colostrum from vaccinated dams had significantly higher serum neutralizing antibody titers to alpha toxin than calves born to controls.”

Scholz adds that vaccination with **Clostridium Perfringens Type A Toxoid** is anticipated to work best when you vaccinate the dam and get antibody into the calf through the cow’s colostrum.

“If you are experiencing an outbreak and have significant death loss, you may also want to vaccinate the calf,” advises Scholz. “The important thing is to involve your veterinarian and call as soon as you suspect a problem. If you aren’t tuned in to watch for clinical cases, you will likely be calling for a necropsy rather than a treatment.”

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