



Evaluation of pain associated with scours in calves

Study Purpose: To determine if calves with scours (diarrhea) exhibit behavioral and physiologic signs of pain; and if the administration of meloxicam changes expressed behaviors and outcomes associated with pain.

Brief Study Description: Calves participating in this trial will be closely monitored for behavioral and physiological signs of pain. As part of the trial, calves will be randomized to receive meloxicam or a placebo treatment, once per day for two days. All calves, regardless of treatment (meloxicam or placebo), will receive intravenous fluid therapy and treatment for scours based on clinical signs and clinician interpretation of clinical signs while on trial. Volume and type of intravenous fluids will be determined based upon the severity of dehydration, acidosis and electrolyte abnormalities, per standard of care. Blood will be collected for physiologic outcomes associated with pain at designated time points over the study period.

Study Eligibility: Calves between 2-21 days of age presenting for treatment of scours, and have not received treatment with a NSAID (Banamine, flunixin, meloxicam) or corticosteroid.

Exclusion criteria: Any calves presenting with septic arthritis, meningitis, respiratory disease, severe azotemia and/or other comorbidities will be excluded from the study.

Client Compensation: If enrolled, an examination fee, up to 3 days hospitalization (ISO Level 1 vs Level 2), blood gas analysis, and fecal PCR for pathogen identification at the KSUVDL will be provided by the researchers.

Owner Responsibilities (*owner agrees to the following*):

- I will be responsible for hospitalization beyond 3 days, IV fluids costs, any additional medications (antibiotics), diagnostics, and VHC fees that are not associated with this trial.
- Once my calf's biosamples (feces and blood) have been collected for study purposes, I relinquish all rights, responsibilities, and ownership of the sample and derivative products that may be generated.
- I give my permission to publish the data obtained from this study for the benefit of the scientific community. I understand that my calf/herd and my information will not be identified individually in any such publications.

Contact Information: Please contact the Clinical Trials Coordinator at the Veterinary Health Center, for more information about this study. Phone: (785)-532-3046; email: ClinicalTrials@vet.k-state.edu