Antimicrobial Usage and Vaccine Usage In Western Canadian Beef Calves

In 2014, 100 cow-calf herds in Alberta, Saskatchewan, and Manitoba reported their antimicrobial usage (AMU). In 2017, vaccine usage was studied. Median size of herds was approximately 230 cows.

**Respiratory Disease**

**AMs Used:**
- Florfenicol with (53% of herds) or without flunixin meglumine (20%), oxytetracycline (15%), tilimicosin (10%) and tulathromycin (9%)

**AMU Frequency:**
- 77% of herds reported AMU in calves for respiratory disease
- Less than 5% of calves were treated in 48% of herds
- 67% of herds vaccinated pre-weaning calves for Mannheimia hemolytica
  - 17% for Pasteurella multocida
  - 45% for Histophilus somni

**Diarrhea**

**AMs Used:**
- Sulfamethazine (44%), sulfadoxine/trimethoprim (23%), and florfenicol with (18%) or without (5%) flunixin meglumine

**AMU Frequency:**
- 73% of herds used for calf diarrhea
- Less than 5% of calves were treated for diarrhea in 46% of herds
- Vaccination of Dams to Protect Calves from Neonatal Calf Diarrhea:
  - 43% for E. coli
  - 52% for Rotavirus or coronavirus

**Navel Ill**

**AMs used:**
- Florfenicol with (32% of herds) or without (17%) flunixin meglumine, or oxytetracycline (19%)

**AMU Frequency:**
- 68% of herds used for navel ill.
- Less than 5% of calves were treated in 59% of herds

**Arthritis**

**AMs used:**
- Oxytetracycline (23%), florfenicol with (9%) or without (5%) flunixin meglumine, procaine penicillin (4%)

**AMU Frequency:**
- 40% of herds used for arthritis
- Less than 5% of calves were treated in 37% of herds

**Conclusions**

The high proportion of herds treating bacterial navel infections and joint infections suggests potential for reducing crowding and fecal contamination of calving and nursery areas.

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