

Evaluation of the treatment efficacy of generic enrofloxacin compared to pioneer for first treatment of naturally occurring bovine respiratory disease in a commercial feedlot

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Introduction

The primary objective of this study was to compare the treatment efficacy of generic enrofloxacin (Tenotryl™ [enrofloxacin] injectable solution; TEN) to pioneer enrofloxacin (Baytril® 100; BAY) for first treatment of naturally occurring bovine respiratory disease (BRD) in a commercial feedlot.

Materials and methods

Five hundred cattle identified with BRD by feedlot pen riders with rectal temperature ≥ 104.0 °F (40 °C), no previous treatments for disease, and estimated > 60 days to harvest were randomly allocated to TEN to the BAY in a 1:1 ratio within each lot. Cattle treated for BRD were returned to home pen and followed for 60 days to monitor subsequent health outcomes. Cattle were categorized by type (dairy-beef or native). General and generalized linear mixed models were used for statistical analyses.

Results

There were no significant health difference between treatment groups ($P \geq 0.10$). There were no differences in first treatment success (64.29% vs. 58.16%; $P = 0.19$) or case fatality risk (10.97% vs. 10.65%; $P = 0.91$) comparing the TEN to the BAY respectively. Native cattle had greater body weight at time of enrollment ($P < 0.01$) and greater third treatment success ($P < 0.01$) compared to the dairy-beef cross cattle.

Significance

There were no differences in health outcomes in cattle which were administered Tenotryl compared to Baytril 100 for first treatment of BRD in commercial feedlot cattle. Practitioners should be able to use these products interchangeably based upon the results of the study. Additional research on the impact on health outcomes of dairy-beef crosses are needed for the beef industry.

