

Quasi-Experimental Studies in Veterinary Medicine.

Hungerford, Laura, Harris, Anthony and Perencevich, Eli

University of Maryland, Baltimore, USA.

Cost, feasibility, practicality, limited case accrual rates, and ethical concerns limit implementation of randomized clinical trials (RCT) in veterinary medicine. Data from clinical case records are often used to compare treatments. This type of study is quasi-experimental (QE) because interventions were nonrandomized. Our objective was to assess the current use of QE studies in veterinary medicine and to extend application of QE designs, developed in other disciplines, within veterinary epidemiology. During 12 months, from August 2003 through July 2004, there were 19 RCTs and 41 QE studies among the 200 research studies reported in JAVMA. These could be classified into all 3 major hierarchical categories of QE studies, ranked from lower to higher as: 1) designs without control groups; 2) designs with control groups but no pretests; 3) designs with control groups and pretests. Category 3 is the most desirable but was the least prevalent among the reported studies. Consideration of advantages, disadvantages and biases associated with specific design options within each category provides a stronger theoretical basis for designing QE studies and for using them to make treatment recommendations. Results from QE studies are used as a base for clinical decision-making. Clinical veterinary research can be enhanced by more formal consideration of principles for design and evaluation of QE studies.