

University of Prince Edward Island

Faculty of Veterinary Medicine
Summary of Dissertation

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DEGREE OF MASTER OF SCIENCE

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Knowledge, Attitudes and Influencers of Pet-Owners Surrounding Antimicrobials and Antimicrobial Stewardship in North America

This research project aimed to establish the current knowledge, attitudes and influencers (KAIs) of North American pet-owners with respect to antimicrobial stewardship and resistance (AMR). A secondary aim was to utilise a novel survey technique (conjoint analysis) to identify what aspects of antimicrobial drug prescriptions pet-owners view as important for their animal.

Data were collected via an online questionnaire, consisting of three parts: demographic information, conjoint analysis, and KAIs. Pet-owners were asked a series of closed-ended, Likert-type questions to assess their opinion of antimicrobial drug attributes (cost, method of administration, and importance in human medicine), and to establish baseline knowledge of AMR in human and veterinary medicine. The survey was modified to be applicable to dog-owners (Chapter 1) or cat-owners (Chapter 2). For each study, participants were recruited into three groups: Canadian cat or dog-owners, US cat or dog-owners, or cat or dog-owners recruited via educational social media (ESM).

Dog-owners were found to prioritise cost over all other features of an antimicrobial drug. Importance of an antimicrobial drug in human medicine was of lowest priority. Dog-owners were found to have a good awareness of AMR in human medicine, but had low knowledge that AMR was a concern in veterinary medicine. A significant association was found between level of education and understanding of AMR in veterinary medicine, with increased understanding of AMR associated with a higher level of education. A similar association was found between level of understanding and participants recruited via ESM.

Cat-owners were found to prioritise cost and method of administration of an antimicrobial drug equally. Importance of a drug in human medicine was the lowest priority attribute. Level of understanding of AMR in cat-owners was comparable to that of dog-owners, and similar associations were found between level of understanding and participant education level or recruitment group.

Publications

I. Stein MR, Evason MD, Stull JW, McClure JT, Weese JS.
Knowledge, attitudes and influencers of North American dog-owners
surrounding antimicrobials and antimicrobial stewardship. *J
SmallAnim Pract* [Internet]. 2021; 1-8. doi: 10.1111/jsap.13297

Presentations

Poster presentation: ACVIM forum 2020