

Use of Antimicrobial Agents and Other Veterinary Drugs on Ontario Sheep Farms

Moon C¹, Berke O¹, Menzies P¹, Avery B², McEwen S¹, Reid-Smith R², Scott L¹. ¹Dept Population Medicine, Ontario Veterinary College, University of Guelph & ²The Public Health Agency of Canada - Health Canada.

Presenter: Catherine Moon - Completed

Drug use in food-producing animals includes public health risks including violative drug residues in food products and antimicrobial resistance. Extra-label drug use (ELDU) is the use of a drug in any manner inconsistent with label instructions; this practice in livestock may lead to public health risks. Relatively few veterinary drugs are approved for use in sheep and lambs in Canada and so it was thought that much of their use would be ELDU. This study investigated drug use practices of Ontario sheep producers. All on-farm sheep drug treatments were recorded over a 12-month study period. Veterinary drug use with focus on antimicrobial use (AMU), ELDU and determinants of drug use practices were described. Fifteen drug categories were recorded; antimicrobials, vitamin and mineral supplements and vaccines were used most frequently. Sheep were treated mostly with penicillins and long-acting oxytetracycline. The rates of using non-licensed antimicrobials were high (e.g. long-acting oxytetracycline), as were the rates of using licensed antimicrobials in an extra-label manner (e.g. use of Micotil on ewes, which is only labelled for lambs). Diseases treated most often (e.g. respiratory disease, mastitis) were not associated with higher rates of AMU or ELDU. Rates of sheep exposure to antimicrobials in Ontario are low in comparison to major livestock species in Canada.

Rates of ELDU are useful in determining if public health concerns about antimicrobial use in Ontario sheep are warranted, and in developing drug use and licensure strategies for the Canadian sheep industry. This information has been forwarded to the Veterinary Drug Directorate, Health Canada to help prioritize drugs to be approved for use in sheep.