

Mindset of Swiss farmers and veterinarians towards the usage of intramammary antimicrobials and their preferences for the design of a Swiss national udder health program

A.- A. Schwendner¹, M.-E. Cousin², M. Bodmer³, G. Schüpbach¹, H. Hogeveen⁴, T.J.G.M. Lam⁴ and B.H.P. van den Borne¹

¹ Veterinary Public Health Institute, Vetsuisse Faculty, University of Bern, Switzerland, ² Consumer behavior, Institute for Environmental Decisions (IED), ETH Zürich, Switzerland, ³ Clinic for ruminants, Vetsuisse Faculty, University of Bern, Switzerland, ⁴ Department of Farm Animal Health, Utrecht University, the Netherlands

Key words

Mastitis, intramammary antimicrobials, farmers, veterinarians

Aim of the study

The goal of this investigation was to determine farmers' and veterinarians' attitudes, knowledge and behavior regarding the usage of intramammary antimicrobials in Swiss dairy herds. Their preferences concerning a new national mastitis control and antimicrobial usage program were also determined.

Material and methods

Semi-structured interviews with 13 Swiss farmers and 7 veterinarians were conducted to provide the input for 2 subsequent online cross-sectional surveys that were sent to 1,300 randomly selected farmers and all 438 ruminant veterinarians in Switzerland. 546 farmers (42%) and 96 veterinarians (22%) completed the surveys. Another 1,300 farmers were asked to participate in the third survey to determine their preferences regarding a new Swiss mastitis control/antimicrobial reduction program: 478 (36.8%) participated.

Results and significance

Up to 17.8% of farmers used 1 of the critically important antimicrobials as their first choice for the treatment of (sub) clinical mastitis; an additional 22.9% used them as a second or third choice. 79.2% of the farmers were unaware that some intramammary antimicrobials are critically important for human medicine and 53.5% of the veterinarians thought, that farmers do not have enough knowledge about antimicrobials and antimicrobial resistance. Veterinarians stated that farmers should ask them first when experiencing an udder health problem (55.4%) while 55.7% of the farmers preferred that their veterinarians should contact them first.

The third online survey identified that most farmers (55.1%) and veterinarians (62.9%) preferred a new mastitis control/antimicrobial reduction program. Both farmers and veterinarians mostly preferred that the new program should not have a bonus/penalty system for low antimicrobial usage (or only a bonus system but certainly not a penalty system) and should focus on improving udder health and reducing antimicrobial usage together.

The first 2 surveys identified that the knowledge of, and communication between, Swiss farmers and veterinarians has to improve to lower usage of intramammary antimicrobials. The third survey determined that farmers and veterinarians are not indifferent for the design of a new animal health program. The results of this study can be used to develop intervention strategies to improve antimicrobial stewardship in Swiss dairy herds.

Publications, posters and presentations

Schwendner, A.-A., Cousin, M.-E., Bodmer, M., Schüpbach, G., Lam, T. van den Borne, B. (2015) Knowledge, attitudes and practices of Swiss farmers and veterinarians towards the usage of intramammary antimicrobials in dairy cows. In: Proceedings of the Middle European Buiatrics Congress, Maribor, Slovenia (Presentation).

Project 1.13.17

Project duration October 2013 – June 2015