

What is behind mastitis treatment registrations?

Line Svennesen, Carsten Enevoldsen & Ilka C Klaas

University of Copenhagen, Faculty of Health and Medical Sciences, Department of Large animal Sciences, Grønnegårdsvej 2, 1870 Frederiksberg C, Denmark lis@sund.ku.dk

Recordings of mastitis treatment data are often used for welfare assessment and mastitis control in herd health management and research, based on national or regional databases. Treatment data available in central databases may be incomplete, and the decision whether to treat mastitis with antibiotics or not is highly dependent on management and farmer's decisions. In larger herds with several employees the selection of cows for antibiotic treatment may be very complex. Knowing what is behind the registered mastitis treatment cases is essential to evaluate whether changes in mastitis incidence are caused by changes in health or changes in management policies. To our knowledge, the complete path from mastitis detection to registration in a central database, including the interaction between several actors in larger herds, has not been investigated previously. The aim of our study was to describe the path from detection to registration of mastitis cases and understand the interaction between different actors in the process of selecting cows for antibiotic treatments. We did a qualitative case study in a Danish organic farm milking approximately 600 cows. All actors involved in detecting and treatment of mastitis were interviewed and observed during their daily routines. The employees' registrations of observed cases of mastitis were evaluated together with the herd veterinarian's treatment records and registrations in the national database. The study confirmed that the selection of cows for antibiotic treatment is complex. Three levels of actors: milkers, herd manager and herd veterinarian had different definitions and treatment thresholds affected by e.g. weekday, staff rotation, previous treatments and somatic cell count. Drying off single quarters was used as an alternative to antibiotic treatment. Important loss of information occurred between milkers and herd manager, whereas the veterinarian registered almost all treatments in the database. In conclusion, the 'human decision factor' related to detection and registration of treated mastitis cases may be more important than biological and management-related risk factors. Thus, we suggest to always attempting to answer the question "what is behind the registrations" prior to any use of the registrations for research or management, and to expect every herd to be unique.

Acknowledgements

This article is based upon work from COST Action FA1308 DairyCare, supported by COST (European Cooperation in Science and Technology, www.cost.eu). COST is a funding agency for research and innovation networks. COST Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.