

O-131 Understanding Northern Irish sheep farmers' engagement with NSAID use: A mixed methods approach

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Introduction

Small ruminants are known to host several zoonotic diseases of which a large proportion is related to infectious causes of abortion. Nowadays, surveillance results of zoonotic diseases are of great interest, particularly within the One Health-concept. Funded by both industry and government, monitoring and surveillance of small ruminant health is performed by Royal GD as a statutory task since 2021. In addition to the main objectives of this system, providing feedback of findings and results to different stakeholders is an essential element. After the implementation of the surveillance system in 2003, the industry's profession has changed. Currently, the majority of the approximately forty thousand Dutch small ruminant farms is small-scale, of which a considerable part has a public function. In addition, developments in communication in modern society request for an evaluation of current approaches and research into more appropriate techniques to improve communication towards stakeholders and the public. To effectively inform all stakeholders concerned, it is expected that different approaches in communication are required.

Material and methods

In this study, all stakeholders of the monitoring and surveillance system have been identified by performing an extensive stakeholder analysis. Subsequently, a tailor-made approach regarding communication with all stakeholders has been established.

Results and discussion

The stakeholders analysis showed that small ruminant farmers, veterinary students and professionals, consultants and suppliers, physicians, policymakers, and the general public are considered important groups to inform about small ruminants surveillance results. Each stakeholder group enquires specific communication to ensure successful information. Nevertheless, also within stakeholder groups different approaches of communication can be necessary due to differences in age or professional background. Currently, limited distinction is made in communication techniques between stakeholder groups. Although communication frequently receives attention in consultation with funders and stakeholders, data regarding its effectiveness are lacking. Therefore, more data are needed to assess and improve the effect of communication.

Conclusion and implications

For decades, written publications and oral presentations were appropriate tools for communication of small ruminant surveillance results, however, times are changing rapidly. In contemporary society, people gather information from a wide variety of sources, which makes informing stakeholders and public even more challenging. Concluding, universally informing different audiences about surveillance results is not effective as it might be inappropriate for certain stakeholders groups, however, a tailor-made approach for each specific group of stakeholders contributes to successful communication. To achieve improvement, systems must be implemented that structurally collect data about the effect of communication.

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Uncited reference

[Dijkstra et al. \(2022\)](#).

Reference

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Understanding Northern Irish sheep farmers' engagement with NSAID use: A mixed methods approach

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Keywords: Non-steroidals; Sheep; Farmers; Veterinarian

Introduction

Sheep suffer numerous painful conditions where their welfare can be improved by efficacious analgesia. Specifically, sheep benefit from analgesia following surgery, assisted parturition, mastitis and lameness. Non-steroidal anti-inflammatory drugs (NSAIDs) have been proven to provide rapid, efficacious and long-lasting analgesia, in a range of food-production animals, that can be administered as needed and by farmers. However, in many countries there are few, or no, NSAIDs authorised for use in sheep. To further improve sheep welfare, greater understanding is needed of the current level of NSAID use and effective drivers for increasing their use.

Material and methods

A mixed methods approach was used to understand farmers' opinions of, and behaviours related to NSAIDs as part of a wider study considering medicine use in the Northern Irish sheep flock. Qualitative data was obtained through semi-structured interviews with 27 farmers and 15 veterinarians, and discussion groups involving sheep-sector stakeholders. Farm medicine records from 52 farms were also analysed. From this quantitative data the quantity of NSAID purchased was calculated and compared with farm antibiotic use and flock size.

Results and discussion

Seventy three percent (38/52) of the farmer medicine records indicated NSAID use. However, uptake of NSAIDs on these farms was highly variable. There was a five-hundred-fold range between the lowest and highest user on a mgPCU⁻¹ basis (0.00156 - 0.79365mgPUC⁻¹). Medicine records indicated that 16 farmers (31%) purchased NSAIDs by the bottle, rather than prescribed individual animal doses. Fourteen (27%) purchased 10ml or less over a one-year period. Meloxicam was the most commonly used NSAID (96%), with small quantities of flunixin (2.6%) and ketoprofen (1.4%) also used. The qualitative data highlighted uncertainty among farmers regarding which medicines provided analgesia. Veterinarians saw potential for increased NSAID use following parturition to displace habitual antibiotic administration, by some farmers, to sheep appearing dull without obvious evidence of infection.

The veterinarians thought that they had a significant role in encouraging farmers to use NSAIDs, particularly in leading by example, despite concerns about the lack of an authorised NSAID for sheep. Some farmers reported observing a positive effect in survival, appetite and speed of recovery, and indicated they would use NSAIDs for future cases. However, not all veterinarians were convinced that farmers perceived a benefit from NSAID use, a view supported by the scepticism expressed by some of the farmer interviewees.

Conclusion and implications

The critical role of the veterinarian as an advocate for the welfare of the sheep and the benefits of NSAIDs has been demonstrated. There remains significant opportunity to increase the use of NSAIDs. An authorised product, with a defined dose schedule and withdrawal period, may further enhance uptake and make promotion of NSAID use simpler.

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Sheep farmer engagement with flock health plans and planning in Northern Ireland: Where are we now?

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Keywords: Health planning; Sheep; Farmers; Veterinarians

Introduction

Flock health planning should be a cyclical process of assessment, evaluation, action and re-assessment. The intention being to improve stockmanship and the use, and stewardship, of veterinary medicines. Done effectively, this should improve animal health and welfare as well as farm productivity and financial returns.

The health plan (HP) became a central facet of the quality assurance schemes (QAS), introduced by the agri-food industry in the United Kingdom in the early 1990s, in response to demands for greater transparency and accountability in food production. While farmers were initially rewarded with bonus payments for QAS membership, within ten years membership become essential for many farmers simply to gain market access. Little is known about the current views of farmers about, and the impact of, HPs, yet HPs continue to be heavily promoted to Northern Irish (NI) sheep farmers.

Material and methods

A mixed methods approach was used to explore farmers' and veterinarians' opinions and behaviours related to QAS and HP as part of a wider study of medicine use in the NI flock. Data was obtained through an online scoping questionnaire, semi-structured interviews with 27 farmers and 15 veterinarians, and discussion groups with wide-ranging industry stakeholders. The association between a farm having a HP and implementation of 12 industry-recommended flock health activities was considered using the Fisher's exact test.

Results and discussion

Of the recommended activities, only 'Treating cases of footrot promptly with an injectable antibiotic' was statistically associated with a farm having a HP ($P < 0.001$); however, this association was negative, meaning farmers with a HP were less likely to follow best practice. Farmers reported a reluctance to pay for veterinary advice, while some veterinarians reported a lack of time to develop HPs for farmers.

Farmers predominantly saw the HP as a static physical document rather than a proactive, reflective and collaborative planning process. The perceived quality of their flock's HP varied, and farmers reported it had limited impact on their management practices.