Expert opinion on livestock antimicrobial usage indications and patterns in Denmark, Portugal and Switzerland

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Background and Objectives

- To foster prudent antimicrobial use (AMU) in livestock, a thorough understanding of the patterns and indications for treatment is required
- The objectives were to: (1) investigate temporal AMU patterns throughout the production cycles and the indications for specific antimicrobial substances, within four common livestock sectors; (2) compare results between countries

Materials and Methods

- Expert opinion deemed as the most appropriate method to collect data with such detail
- Veterinary experts (n=67) from different livestock sectors (broilers, pigs, dairy cattle and veal/fattening calves) and countries (Denmark, Portugal and Switzerland) replied to a questionnaire

Results

- Large differences were found regarding antimicrobial substances licensed in each country
- Between- and within-country variations exist regarding temporal distributions of treatments and indications for use (Fig. 1)
- These differences hold true for several critically important antimicrobials, which is of particular concern (Fig. 2)
- A web-application was created to show all results in an interactive fashion

Key messages

- We recommend to establish and promote treatment guidelines and invest in disease prevention during critical moments of the production cycle to avoid undifferentiated use of antimicrobials
- Discrepancies between countries should be further investigated to better understand the factors underlying the identified patterns and to distinguish prudent from non-prudent use
- These results can inform decision-making with the objective of fostering prudent AMU in the livestock setting