



Changing antimicrobial use in animal production

Ideas to set up interventions for more prudent antimicrobial use in animal production

Background & Problem

In animal production, changes in antimicrobial use (AMU) are needed to prevent antimicrobial resistance (AMR). However, there is no “one-size-fits-all” solution to encourage and facilitate prudent AMU. Methods, strategies, actors, and monitoring systems must be contextually developed.

Many decisions, actions and physical circumstances are involved when the use of antimicrobials should be changed, therefore altered AMU requires changes at several levels.

From reviewing the scientific literature on interventions to change AMU, some key factors for successful change were identified.

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Publication

[Literature review of impact assessment applied to changes in antimicrobial use initiatives](#)

Keywords

Antimicrobial use, impact, animal production

Solution

With this practice abstract, you – as a farmer, advisor or vet - will get ideas to set up interventions to facilitate changes in AMU in animal production.

Outcome

1. First, motivation for changing AMU needs to be established (e.g., wanting to decrease AMR, maintaining customers' confidence). This motivation for change activates levers that are beneficial to overcome barriers (e.g., fear of negative impacts on productivity, economy, or animal health).
2. Stakeholders at all stages of the intervention should be involved. Direct stakeholders (i.e., veterinarians, farmworkers, feed advisors, researchers) and indirect stakeholders (drug and food industry, government bodies) should be involved in identifying the changes they wish to see and assessing whether and how those changes must be implemented.
3. Goal(s) for the intervention need to be defined. An example of a goal could be decreased/improved/responsible/rationalised AMU and AM prescribing. The desired impact could be to tackle excessive AMU and increase the knowledge and awareness of the involved actors in AMU.

The interventions and monitoring and evaluation options can be found in **Figure 1**.

Practical recommendations

The key factors for acceptance and successful change in AMU are:

- Good collaboration and open discussions
- The tradition of using and respecting science
- Access to all relevant data
- Use of participatory and farm-specific approaches
- Preliminary study to assess the risk perceived by the farmer who undertakes AMU reduction
- An accurate diagnosis of the main herd health problems and underlying causes
- Make sure the farmer is ready to engage in the process
- A limited number of objectives



The failure factors to be aware of:

- The dilapidated state of the buildings and associated environmental problems
- Persistence of underlying health problems
- Failure of previous attempts
- Lack of alternative options
- Social norms, incentives and structures that drive misuse of medicines almost always remain unchanged

Illustrations



Figure 1 Example of an intervention strategy

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