What is done to protect consumers from exposure to meat, with residues of antimicrobials? The brief answer is: "A lot!" - But more could be done, and we have a suggestion

Background

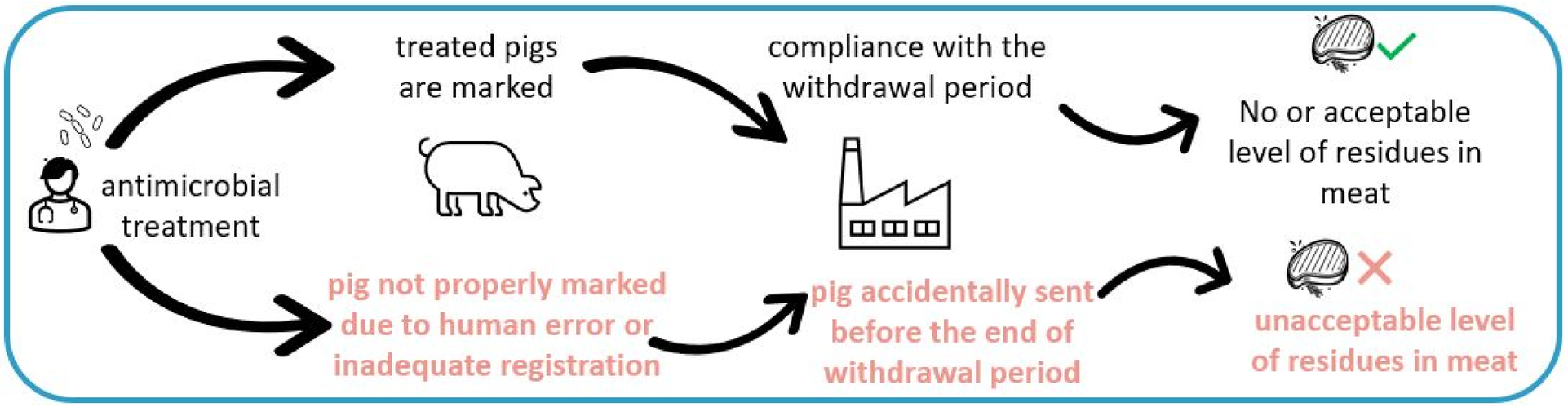
The protection of consumers against exposure to meat, with residues of antimicrobials (AMs), has been investigated by the RIBMINS COST Action network

The analysis was based on collection of data from 27 countries in- and outside EU

Withdrawal periods after AM treatment are defined to prevent in meat presence of residues above maximum residue limits (MRL)

Monitoring show that residues are only found infrequently

However, errors can lead to presence of residues above the maximum residue limits (MRL). When detected, an action is needed, but which?



Best practice models, balancing consumer safety with EU policy on minimising food waste

Model A (monitoring) could reflect small abattoirs placing meat on national market:

- Detection of a residue above MRL is interpreted in same way as a process hygiene criterion
- Requires on-farm inspection to prevent future mistakes
- No retention of tested carcasses

Model B (surveillance) could reflect abattoirs also trading and exporting:

- Detection of residues above MRL is interpreted as food safety criterion
- Requires on-farm inspection
- Tested carcass is retained to avoid expensive recalls in case residues are found
- Testing regime must be fast to be feasible, e.g., use of HPLC-LC/MS-MS system

Reference

Alban, Antunović, Belous, Bonardi, García-Gimeno, Jenson, Kautto, Majewski, Oorburg, Sakaridis, Sirbu, Vieira-Pinto, Vågsholm, Bērziņš & Petersen. 2023. Mapping ways of detecting and handling antimicrobial residues in pigs and pig meat in- and outside Europe. Food Control. https://doi.org/10.1016/j.foodcont.2023.110000