

Promoting of prudent use of antimicrobials in food-producing animal - experience from Finland

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Objectives

The decades-long aim has been to reduce the need of antimicrobials instead of reducing their use in Finland. The focus has been on the control of zoonoses and animal diseases and on the herd health programmes.

Examples of measure taken

- No profit on sales of medicines by veterinarians and POM-requirement for systemic antimicrobials (1949)
- Systematic resistance monitoring in Salmonella species (1983) and FINRES-Vet programme covering resistance monitoring in major zoonotic and indicator bacteria (2002)
- Sales of antimicrobials published annually (1995)
- The legislation emphasises the role of veterinarian; making a clinical diagnosis and microbiological analyses are a prerequisite for an antimicrobial treatment especially in group treatments and recurrent infections.
- Restrictions for the use of human critically important antimicrobials (HCIA)
- Indication-based recommendations for the use of antimicrobials in animals in place (1996); the latest revision published in May 2016
- Veterinarians are obliged to take into account the official recommendations and guidelines on the use of antimicrobials

Results and discussion

The resistance in zoonotic bacteria and in many animal pathogens is still moderate or low (Fig. 1). Total sales of antimicrobials for food-producing animals in Finland is low (ESVAC data).

- Population corrected sales for 2010-2014 around 22 mg/PCU.
- Beta-lactamase sensitive penicillins were the most used antimicrobials (40 % in 2014).
- Over half of the antimicrobials were given as individual treatment (Fig. 2).

Co-operation between all sectors is necessary to ensure continuous vigilance in prudent use, training and dissemination of information as well as measures to increase biosecurity and disease controls on farms. The national target is to maintain this low-level consumption also in the future although the structure of animal production is changing. The national antimicrobial policy is strongly supported by Finnish farmers' organization MTK.

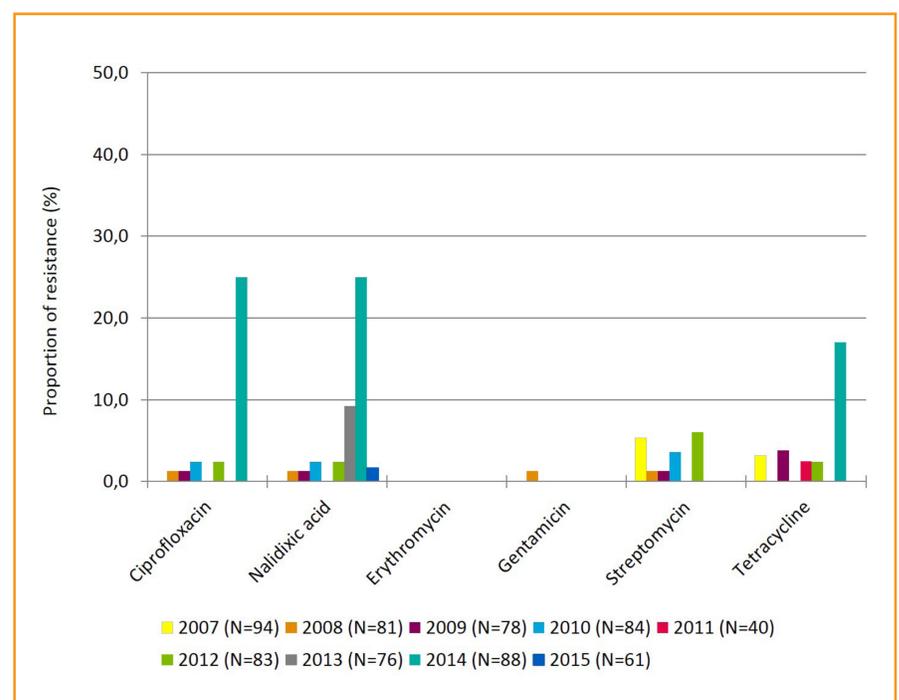


Figure 1. Despite the peak in resistance in 2014 among *Campylobacter jejuni* from broilers, the resistance levels have remained favourable (Source: Evira).

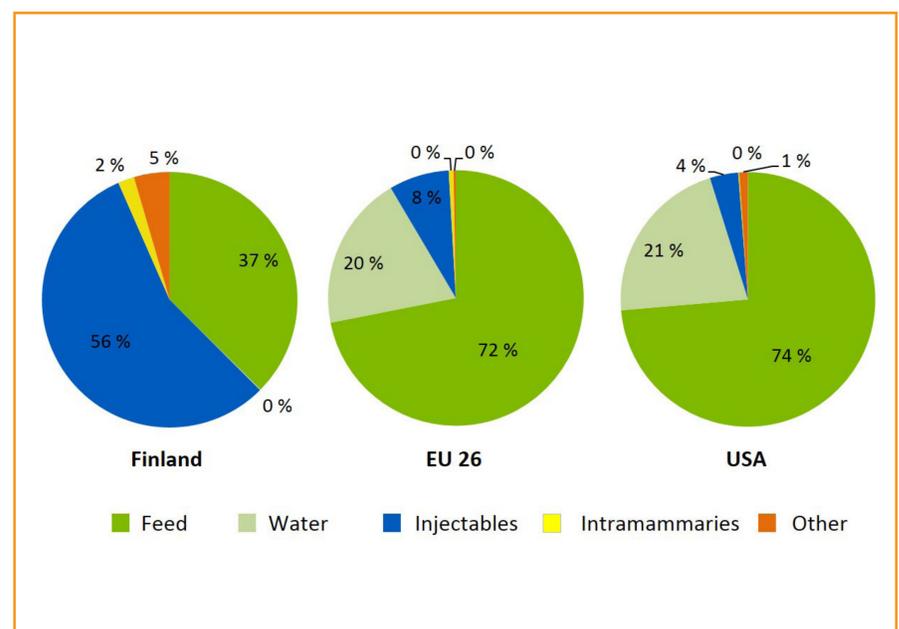


Figure 2. In Finland, most of the antimicrobials are administered as injections to food-producing animals while in the 26 European countries (EU 26) and in the USA in-feed medication is the most common route of administration. Group "other" includes orally administered products other than those given in feed or in water, intrauterine products (only EU) and topical products (only USA) (EMA 2015, FDA 2014).