CZECHIA

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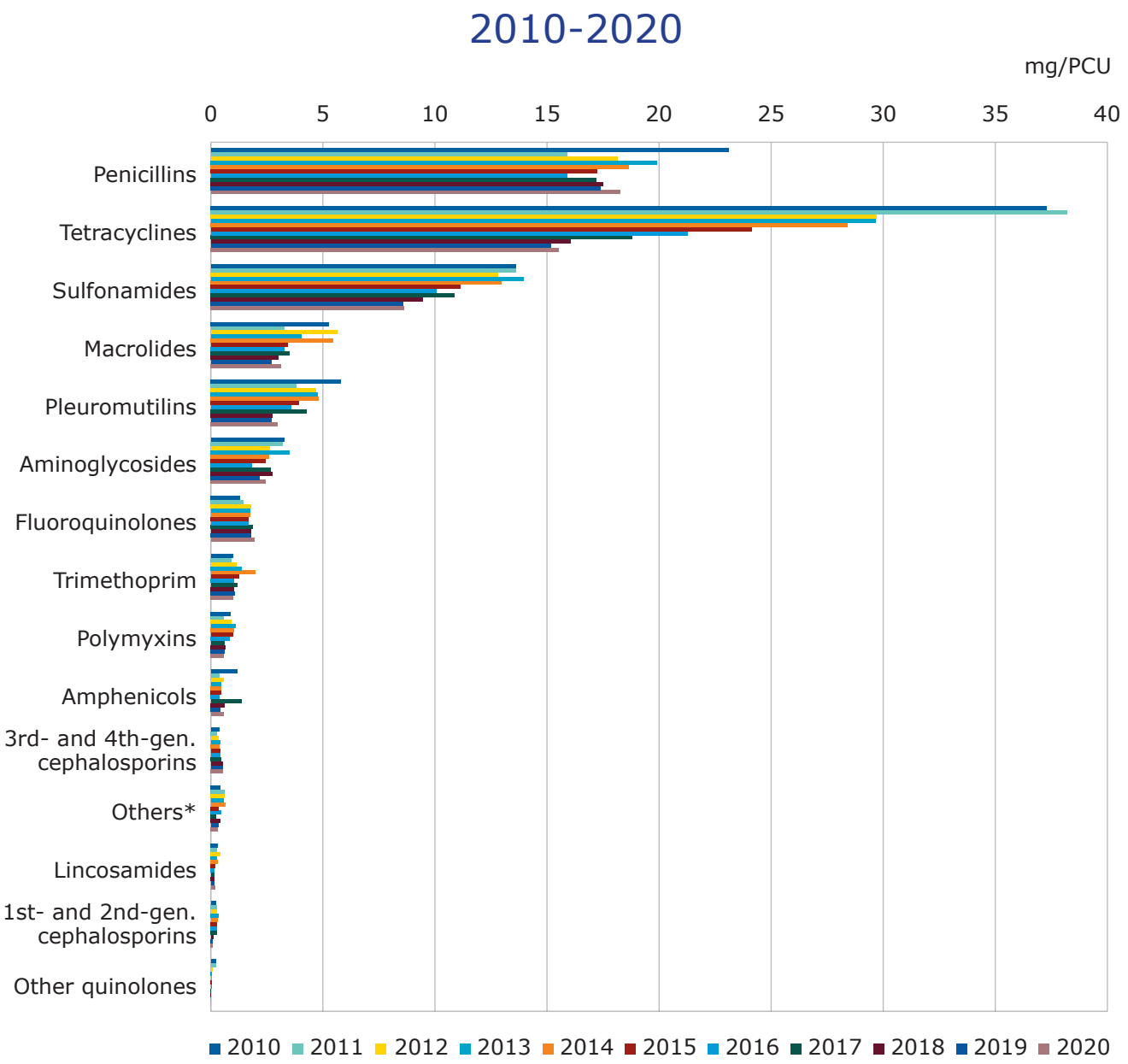
Veterinary Medicines Division

SALES TRENDS (MG/PCU) OF ANTIMICROBIAL VMPs FOR FOOD-PRODUCING ANIMALS



* The class 'Others' includes sales of bacitracin, novobiocin, rifaximin and spectinomycin (classified as 'Other antibacterials' in the ATCvet system).

From 2010 (94.3 mg/PCU) to 2020 (56.3 mg/PCU), total annual sales of antimicrobials fell by 40.4% in Czechia, with few fluctuations observed over the years. In 2020, the largest reductions (in mg/PCU) in comparison with 2011 were observed for tetracyclines (58.4%) and sulfonamides (37.6%). Also in 2020, penicillins, tetracyclines and sulfonamides were the highest-selling classes of antimicrobials, representing 32.5%, 27.6% and 15.3% of total annual sales, respectively. In comparison with 2019 (53.8 mg/PCU), total sales increased by 4.6% in 2020.

For 3rd- and 4th-generation cephalosporins, sales increased by 46.3% from 2010 (0.37 mg/PCU) to 2020 (0.54 mg/PCU) and by 1.2% from 2019 (0.53 mg/PCU) to 2020, while aggregated sales for the 25 countries were 0.16 mg/PCU.

Sales of fluoroquinolones were 1.94 mg/PCU in 2020, representing increases of 48.6% from 2010 (1.31 mg/PCU) and 8% from 2019 (1.80 mg/PCU), while aggregated sales for the 25 countries were 2.21 mg/PCU.

For other quinolones, sales dropped by 98% from 2010 (0.22 mg/PCU) to 2018 (0.004 mg/PCU). In 2019 and 2020, there were no reported sales of other quinolones. Aggregated sales for the 25 countries in 2020 were 0.16 mg/PCU.

For polymyxins, of which consumption has historically been low in Czechia, sales decreased by 33.3% from 2010 (0.89 mg/PCU) to 2020 (0.59 mg/PCU) and by 5.1% from 2019 (0.63 mg/PCU) to 2020. Aggregated sales for the 25 countries were 2.58 mg/PCU.

To identify areas for improvement in the Czech national action plan against antimicrobial resistance (CZ NAP 2019–2022), an in-depth analysis was carried out and consultations on the purpose of antimicrobial use and obstacles to more responsible use in individual groups and animal species and categories were held with various stakeholders within the Working Group on Antimicrobials (WGAM) at the Ministry of Agriculture.

The decrease in total sales could be partly due to a reduction in the use of medicated premixes for herds/flocks between 2010 and 2020 (a decrease of 73%). More targeted and individualised use of antimicrobials in drinking water on better defined-groups/individual animals was one of the main drivers in the reduction of sales of premixes and overall sales.

Improvements in animal care and herd/flock management, as well as the introduction of new technologies have contributed significantly to the overall decrease in antimicrobial sales in Czechia. For major individual sectors, the following measures were implemented: herding of specific pathogen-free (SPF) swine populations, improvements in care (especially for piglets at weaning), in-house microbiological tests and increased use of narrow-spectrum penicillins in the dairy sector, and improved biosecurity and tailored care for parent flocks and one-day-old chicks to prevent disease in the poultry sector.

Monitoring of susceptibility and resistance of target veterinary pathogens (since 2015) initialised by WGAM and access to datasets with minimum inhibitory concentrations (MICs) have helped and motivated veterinarians and farmers to make better antimicrobial choices. Both physical, and since 2020 also virtual trainings/courses have been held to increase awareness of antimicrobial resistance among veterinarians.

Between 2019 and 2020, overall sales of antimicrobials increased by 4.6% in mg/PCU. The year 2020 was quite challenging as regards many aspects that have broad impacts both on human and veterinary medicine. It is hypothesised that COVID-19 could have had an impact on the availability of technical and veterinary professionals at farms and, consequently, may also have had an impact on animal care, hygiene and biosecurity. These circumstances were discussed with WGAM in order to identify actions within the CZ NAP that can be implemented effectively so as to continue to promote reduced use of antimicrobial VMPs and restore the declining sales trend observed from 2013 to 2019.

A fact-finding mission on antimicrobial resistance was carried out in Czechia between 20 and 24 June 2016 (report not published), and concluded that 'several aspects of the policies in place may serve as potential examples of good practice to other Member States'.