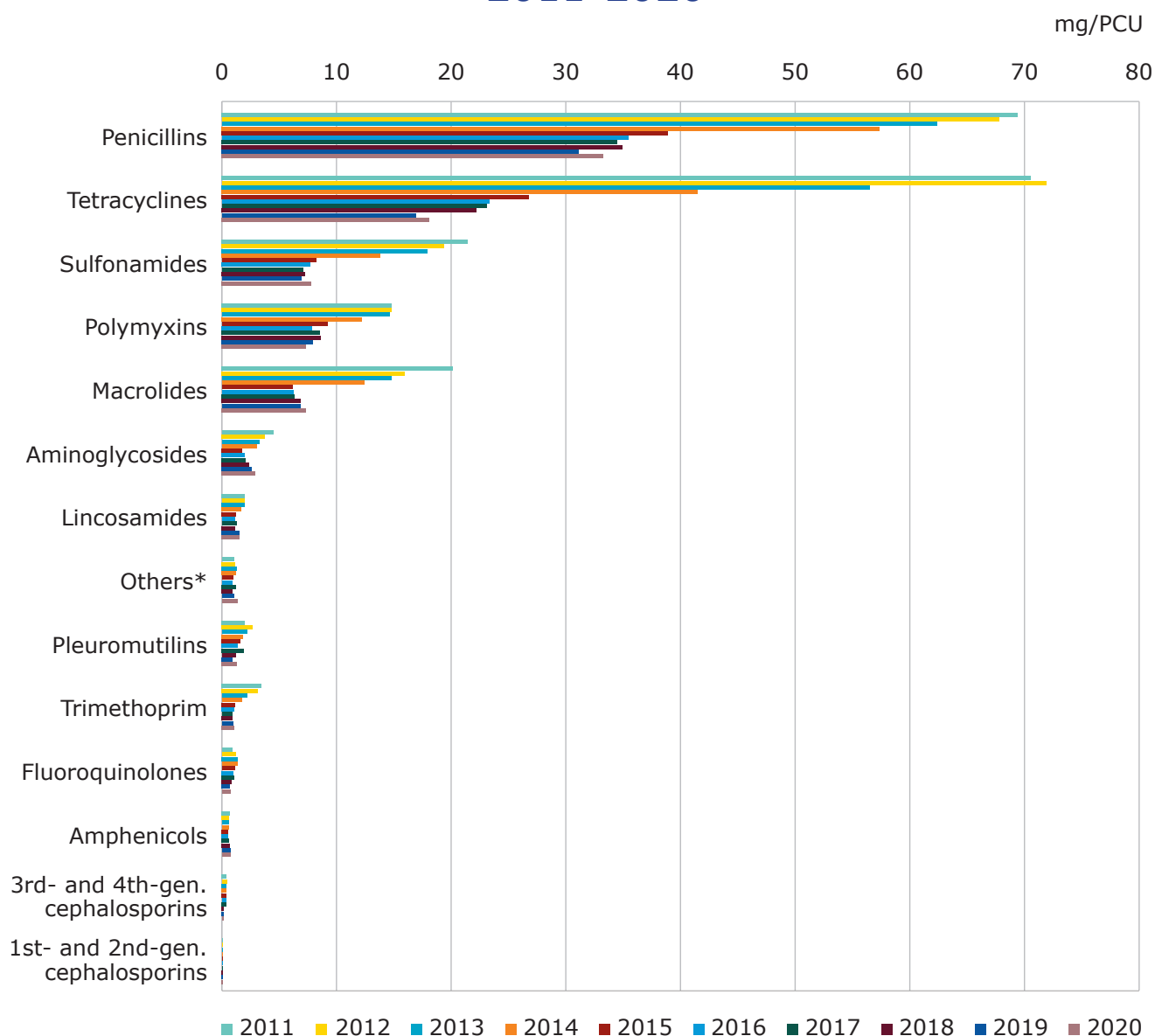




SALES TRENDS (MG/PCU) OF ANTIMICROBIAL VMPs FOR FOOD-PRODUCING ANIMALS

2011-2020



No sales of other quinolones in any of the years.

* The class 'Others' includes sales of Imidazole derivatives (metronidazole), Nitrofurantoin derivatives (furazolidone) and Other antibacterials (bacitracin and spectinomycin). Of note is that some of the sales could be for non-food-producing animals.

In Germany, overall annual sales of antimicrobials declined by 60.4% between 2011 (211.5 mg/PCU) and 2020 (83.8 mg/PCU). The declining trend was observed for nearly all antimicrobial classes, except 1st- and 2nd-generation cephalosporins and 'Others'. The greatest relative declines were noted for trimethoprim

(68.7%), tetracyclines (74.4%), sulfonamides (63.6%), macrolides (63.7%), penicillins (52.1%) and 3rd- and 4th-generation cephalosporins (61.7%). Overall sales decreased every year, with the largest fall observed from 2014 to 2015 (34.2%), although they increased by 6.6% in 2020 (83.8 mg/PCU) in comparison to 2019 (78.6 mg/PCU).

In 2020, the highest-selling antimicrobial classes were penicillins (39.7%), tetracyclines (21.6%), sulfonamides (9.3%), polymyxins (8.8%) and macrolides (8.7%), while sales of 1st- and 2nd-generation cephalosporins, 3rd- and 4th-generation cephalosporins and fluoroquinolones were low, accounting for 0.1%, 0.2% and 0.9%, respectively, of total annual sales.

Sales of 3rd- and 4th-generation cephalosporins were relatively stable during the period 2011 to 2017, before dropping by 60.4% from 2017 (0.39 mg/PCU) to 2020 (0.15 mg/PCU). Aggregated sales for the 25 countries were 0.16 mg/PCU.

Sales of fluoroquinolones rose by 50.1% from 2011 (0.91 mg/PCU) to 2014 (1.37 mg/PCU) but subsequently decreased by 44.2% up until 2020 (0.76 mg/PCU). From 2011 to 2020, overall sales of fluoroquinolones decreased by 16.3%. Aggregated sales for the 25 countries were 2.21 mg/PCU.

Overall sales of polymyxins decreased by 50.5% from 2011 (14.84 mg/PCU) to 2020 (7.34 mg/PCU). Aggregated sales for the 25 countries were 2.58 mg/PCU.

The antimicrobial minimisation concept introduced by the 16th Act to Amend the Medicinal Products Act came into force in the second half of 2014. Farms of certain categories and sizes that keep cattle, pigs, chickens or turkeys for fattening purposes must report, inter alia, the numbers of treated animals and treatment days for every antimicrobial product administered. Treatment frequencies are calculated per half-year period. If the individual treatment frequency of a farm exceeds the median treatment frequency of all farms of a certain production category, the farm must evaluate its antimicrobial usage in collaboration with a veterinarian. If the individual treatment frequency also exceeds the third quartile, a written action plan has to be provided for assessment by the competent authority. A direct numerical relationship between the antimicrobial minimisation concept and the decreases in sales of veterinary antimicrobial agents cannot be demonstrated, but the concept was shown to be effective by an evaluation study published in 2019¹.

A fact-finding mission was carried out in Germany between 19 and 26 April 2016 in order to gather information on the prudent use of antimicrobials in animals².

On 1 March 2018, the 2nd Amendment of the Veterinary Pharmacies Prescription Regulation came into force. It is aimed at addressing the issue of antimicrobial resistance through optimisation of therapy. In this context, susceptibility testing was, inter alia, made obligatory for the use of 3rd- and 4th-generation cephalosporins and fluoroquinolones.

¹ https://www.bmel.de/SharedDocs/Downloads/EN/Animals/Report-16thAMGAmendment.pdf;jsessionid=96E37C79E89933F7A1077517F7DD9EA6.live851?__blob=publicationFile&v=4

² https://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3676&rep_inspection_ref=xxx

