NETHERLANDS

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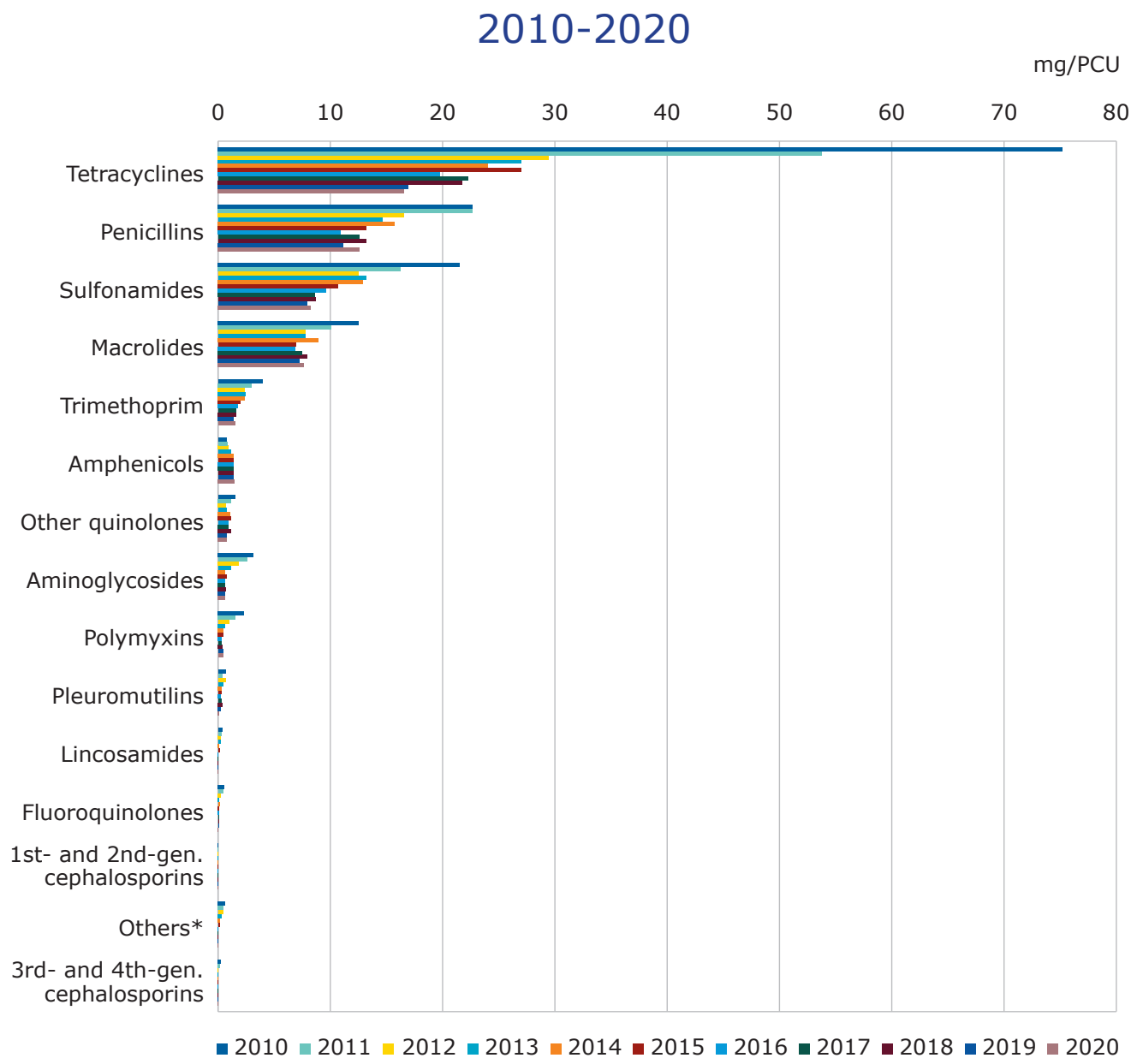
Veterinary Medicines Division

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



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

A 56% drop in sales (in mg/PCU) of veterinary antimicrobial agents was observed from 2011 to 2020. Compared to 2010, sales declined by 65.6% in 2020. This is the result of efforts by the major production sectors and veterinarians, who agreed with the government on the setting, in 2010, of targets for the reduction of use of antimicrobial agents in food-producing animals.

Sales of 3rd- and 4th-generation cephalosporins, other antibacterials, fluoroquinolones, lincosamides and colistin show the largest declines from 2011 to 2020 (99.9%, 95%, 90%, 83.8% and 71.2%, respectively). As it concerns the highest-selling antimicrobial class in the Netherlands since 2011, the 69.2% reduction in tetracyclines sales has contributed considerably to the overall decline in total sales.

Sales (mg/PCU) of 3rd- and 4th-generation cephalosporins fell by almost 100% from 2011 to 2020. In 2011, this subclass accounted for 0.16% of total sales, while in 2020 the figure was 0.0004%. This result was achieved due to efforts within private quality-production systems. Private quality systems for pigs and dairy cows prohibited most uses of 3rd- and 4th-generation cephalosporins. In 2020, the sales of 3rd- and 4th-generation cephalosporins were 0.0002 mg/PCU, while aggregated sales for the 25 countries were 0.16 mg/PCU.

Sales (mg/PCU) of fluoroquinolones fell by 90% from 2011 to 2020. In 2011, this subclass accounted for 0.4% of total sales, while in 2020 the figure was 0.09%. In 2020, sales of fluoroquinolones were 0.05 mg/PCU, while aggregated sales for the 25 countries in that year were 2.21 mg/PCU.

Sales (mg/PCU) of other quinolones decreased by 30.4% from 2011 to 2020. This subclass is categorised as second-line antimicrobials, in contrast to fluoroquinolones, which are classified as third-line antimicrobials. Quinolones (mainly flumequine) share some indications with, e.g., colistin, which is also classified as a second-line antimicrobial but with additional restrictions for use comparable to those that apply to third-line antimicrobials. For these reasons, not much has changed in the use of this subclass, which accounted for 1.6% of total sales in 2020. While the aggregated sales for the 25 countries in the same year were 0.16 mg/PCU, sales of other quinolones in the Netherlands were 0.80 mg/PCU.

Sales (mg/PCU) of polymyxins (>99% of which were of colistin) decreased by 71.2% from 2011 to 2020; in 2011, this subclass accounted for 1.4% of total sales, while in 2020 the figure was 0.9%. In 2020, sales of polymyxins were 0.45 mg/PCU, while the aggregated sales for the 25 countries in that year were 2.58 mg/PCU.

As of 2013, antimicrobial susceptibility testing is mandatory for veterinarians before using 3rd- and 4th-generation cephalosporins and fluoroquinolones. Since 2015, adherence to this obligation has also been monitored for companion animals.

Several treatment guidelines have been introduced and updated regularly, addressing treatment of both food-producing and companion animals. For instance, for cattle veterinarians, a guideline for dry cow management was introduced in 2014, resulting in a shift in treatment methods from second-line towards first-line antimicrobials and an overall reduction in antimicrobial treatment of dry cows.

Since 2011, antibiotic use by livestock farms in the Netherlands has been monitored using benchmark indicators. The benchmark method for veterinarians was introduced in 2014 and veterinarians working in the monitored livestock sector have access to their Veterinary Benchmark Indicator (VBI). In 2020, the method of calculating VBI was adjusted to make it more intuitively understandable. Farms and veterinarians with a usage or VBI above the action level benchmark are obliged to adapt their use or prescription patterns.

The number of monitored sectors is gradually increasing. In 2020, the following sectors were included: dairy cattle, veal calves, other cattle, pigs, broilers, turkeys and rabbits.

A fact-finding mission was carried out in the Netherlands between 13 and 20 September 2016 to gather information on the prudent use of antimicrobials in animals[1].

[1] https://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3753&rep_inspection_ref=xxx