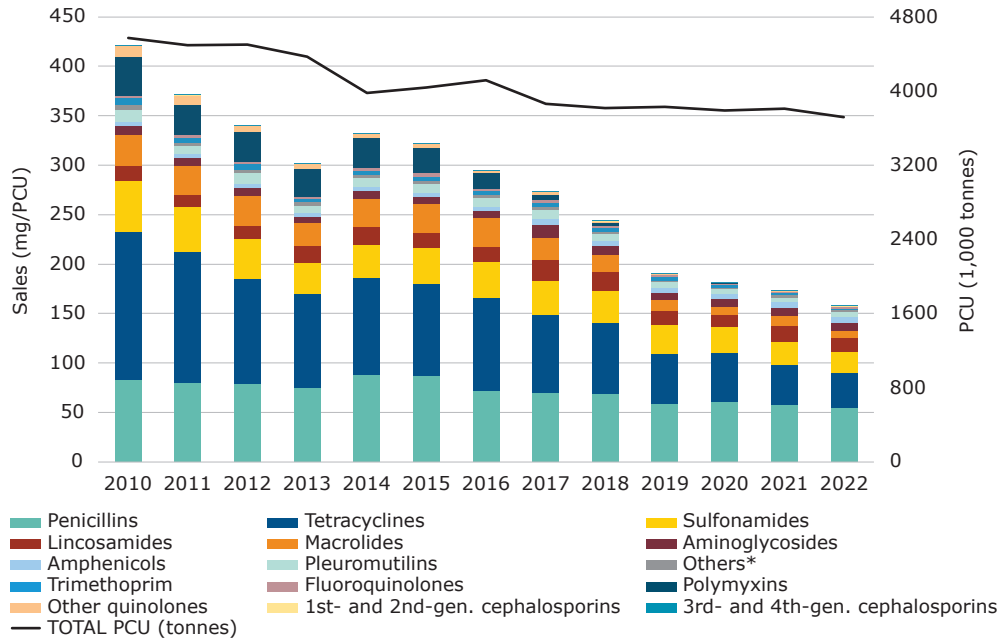


Sales trends (mg/PCU) of antibiotic VMPs for food-producing animals

Sales trends by antibiotic class (mg/PCU) from 2010 to 2022¹



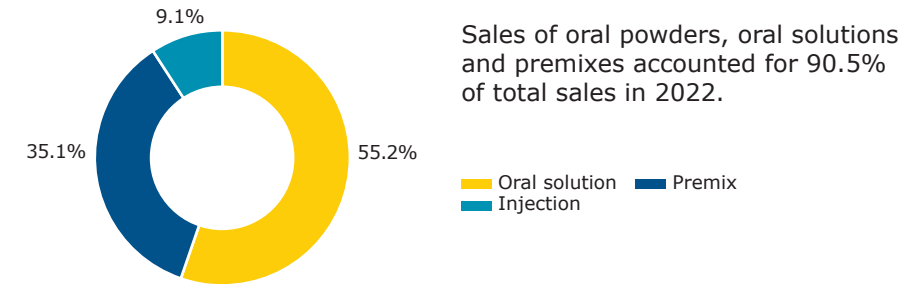
¹ Sales data sorted from highest to lowest in 2022.

* The class 'Others' includes sales of the following sub-classes: imidazole derivatives (metronidazole), nitrofurantoin derivatives (furazolidone) and other antibacterials (bacitracin, furaltadone, rifaximin, spectinomycin). Of note is that some of the sales could be for non-food-producing animals.

Since 2011:

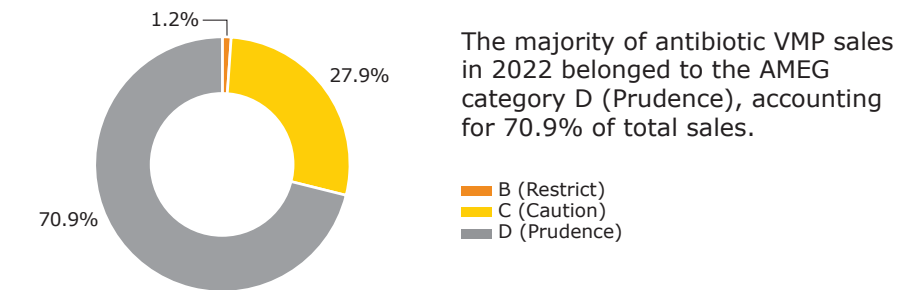
- ⬇️ 57.5% overall annual sales (from 371.0 mg/PCU to 157.5 mg/PCU in 2022)
- ⬇️ 76.2% 3rd- and 4th-generation cephalosporin sales (from 0.36 mg/PCU to 0.09 mg/PCU in 2022)
- ⬇️ 59.0% fluoroquinolone sales (from 2.2 mg/PCU to 0.90 mg/PCU in 2022)
- ⬇️ 95.9% other quinolone sales (from 9.1 mg/PCU to 0.38 mg/PCU in 2022)
- ⬇️ 98.1% polymyxin sales (from 30.7 mg/PCU to 0.58 mg/PCU in 2022)
- ⬇️ PCU decreased by 17.4% between 2011 and 2022

Proportion of sales (mg/PCU) by product form in 2022¹



¹ The sales of oral powders and other forms (intramammary, intrauterine, bolus and oral paste products) are not represented in this figure and represent 0.2% and 0.4% of total sales, respectively.

Proportion of sales (mg/PCU) by AMEG categories in 2022



2022 sales data

In 2022, overall sales decreased by 9.2% in comparison to 2021 (from 173.6 mg/PCU to 157.5 mg/PCU). The three highest selling antibiotic classes were penicillins, tetracyclines and sulfonamides, which accounted for 34.6%, 22.6% and 13.8% of total sales, respectively.

Country information

In Italy, sales data from 2010 to 2019 represent sales from MAHs to authorised storage premises, such as wholesalers and feed mills. Since 2020, the data represent dispensed e-prescriptions obtained from wholesalers (direct sale) and pharmacies for veterinarians, farmers and companion animal owners, except for the sales of premixes, the source of which remains with the MAHs.

In 2019 Italy adopted a computerised traceability system for the veterinary medicine supply chain. This VMP traceability system includes a central database for detecting the movements of all packs of VMPs (sales data) along the production and distribution chains from the producer to the first recipient (wholesaler, feed mill or pharmacy), and an electronic veterinary prescription database for tracking VMPs from their prescription by the veterinarian to the end-user (veterinarian, breeder authorised to produce medicated feed for own-use, farmer or person keeping companion animal) administering it to the animals (use data).

In 2022, this system was completed with the electronic records of VMPs used in food-producing animals (use data for food-producing animal). The data thus obtained shall be used to categorise the farm according to its risk of selection and dissemination of antimicrobial resistant microorganisms, via indicators of antibiotic use on farms, calculated using Defined Daily Dose Animal for Italy (DDDAit). Individual reports (benchmarking) are available for both veterinarians and farmers. The categorisation also takes information on other aspects into account, such as animal health, welfare and management standards. All sectors were monitored in 2022.

In 2017, a 4-year National Action Plan against Antimicrobial Resistance (PNCAR)¹ was implemented for the first time and updated regularly. It sets reduction targets of antimicrobial consumption, consistent with the primary and secondary indicators of the JIACRA report, which have been met and significantly exceeded. Some of the key aims are to improve the 'One Health' approach, develop or update guidelines on the prudent use of antimicrobials for each animal species / categories, also for companion animals, harmonise antimicrobial susceptibility testing (AST) at national level and implement an electronic system that collects and makes available these results so as to better address the treatment.

¹ <https://www.salute.gov.it/portale/antibioticoresistenza/dettaglioContenutiAntibioticoResistenza.jsp?id=5281&area=antibiotico-resistenza&menu=vuoto>