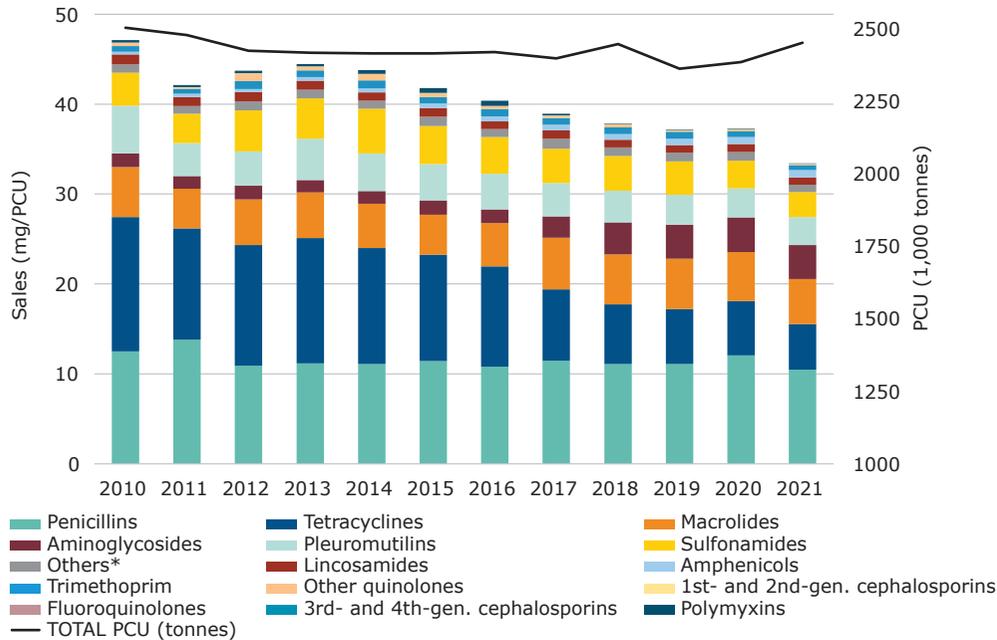


Sales trends by antibiotic class (mg/PCU) from 2010 to 2021¹



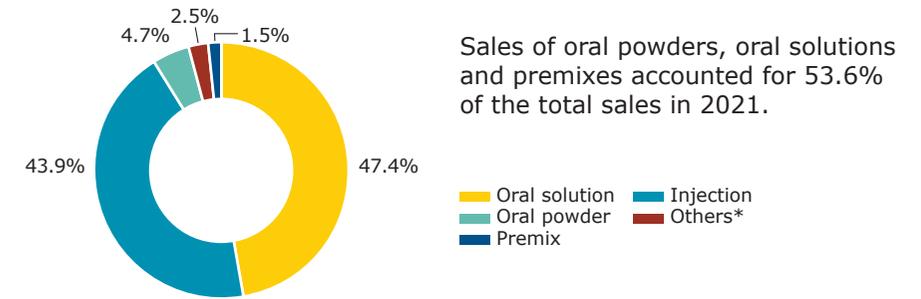
¹ Sales data sorted from highest to lowest in 2021.

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

Since 2011:

- ⬇️ 20.8% overall annual sales (from 42.1 mg/PCU to 33.4 mg/PCU in 2021)
- ⬇️ 98.1% 3rd- and 4th-generation cephalosporin sales (from 0.03 mg/PCU to <0.01 mg/PCU in 2021)
- ⬇️ 58.3% fluoroquinolone sales (from 0.01 mg/PCU to <0.01 mg/PCU in 2021)
- ⬇️ 2.0% other quinolone sales (<0.15 mg/PCU in all years)
- ⬇️ 100% polymyxin sales (from 0.22 mg/PCU to 0 mg/PCU in 2021)
- ⬇️ The PCU decreased by 1.1% between 2011 and 2021

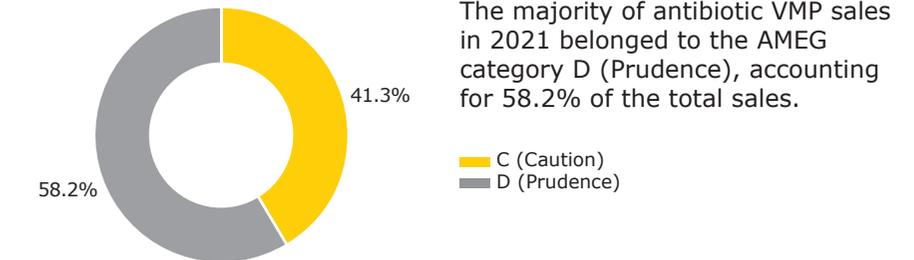
Proportion of sales (mg/PCU) by product form in 2021



Sales of oral powders, oral solutions and premixes accounted for 53.6% of the total sales in 2021.

* Other forms include intramammary, intrauterine, bolus and oral paste products.

Proportion of sales (mg/PCU) by AMEG categories in 2021¹



The majority of antibiotic VMP sales in 2021 belonged to the AMEG category D (Prudence), accounting for 58.2% of the total sales.

¹ Sales of antibiotic classes belonging to the AMEG category B (Restrict) are not represented in the figure and constitute 0.5% of total sales.

2021 sales data

In 2021, overall sales decreased by 10.3% in comparison to 2020 (from 37.2 mg/PCU to 33.4 mg/PCU). The three highest selling antibiotic classes were penicillins, tetracyclines and macrolides, which accounted for 31.4%, 15.1% and 15.0% of total sales, respectively.



Country information

Part of the 10.3% reduction seen from 2020 to 2021 is related to the Danish government's decision to cull all Danish mink herds in response to the COVID-19 outbreak. In 2021, the highest selling classes in Denmark were penicillins, tetracyclines and macrolides. Beta-lactamase-sensitive penicillins accounted for 62% of all penicillin sales in 2021. The updated 'Yellow card' initiative for pigs introduced in 2016 multiplies the average daily dose (ADD) for tetracycline by a factor of 1.5. As a result, tetracycline sales as a proportion of total sales fell from 28.3% in 2015 to 15.1% in 2021. The political target for reducing antimicrobial consumption in pigs set in 2018 aimed for an 8% reduction by the end of 2022. Consumption in pigs in 2021 decreased by 2.2% compared to 2018.

Historically, sales of fluoroquinolones have been low due to a strict regulation on the prescription of fluoroquinolones for food-producing animals that was enforced in 2002.

Sales of macrolides accounted for 15.0% of total sales in 2021. From 2011 (4.4 mg/PCU) to 2021 (5.1 mg/PCU), these increased by 13.7%. Approximately 94% of the macrolides sold (mostly tylosin) are used in pigs. Macrolides are used as a substitute for tetracycline, and this class of antimicrobials has been assigned a factor of 1.