HPRA
An tÚdarás Rialála Táirgí Sláinte
Health Products Regulatory Authority

Sales of veterinary antimicrobials in Ireland during 2024

1. INTRODUCTION

In accordance with Article 57 of Regulation (EU) 2019/6, the collection and reporting of the volume of sales of veterinary antimicrobial products and on the use of antimicrobial medicinal products became a mandatory activity of Member States, starting with data from 2023. The goal is to have sufficiently detailed and comparable data at European Union level to determine the trends and identify possible risk factors that could lead to the development of measures to limit the risk from antimicrobial resistance and to monitor the effect of measures already introduced. In the case of Ireland, the Department of Agriculture, Food and the Marine (DAFM) is responsible for collecting and reporting usage data to the European Medicines Agency (EMA), while the Health Products Regulatory Authority (HPRA) is responsible for reporting the volume of sales data.

This report presents the data collected by the HPRA on the volume of sales of veterinary antimicrobial products that are marketed in Ireland for the year 2024. This work is conducted in conjunction with the EMA and the companies involved.

The sales data provided in this report should be interpreted with caution. There are multiple and various factors that may impact sales data (changes in animal demographics, disease prevalence, product availability, etc.) and sales of individual antimicrobials have been observed to fluctuate from one year to the next. In addition, it should be noted that sales data may not reflect antimicrobial use in a given year.

2. METHODOLOGY

In 2023, the methodology used for the collection of volume of sales data changed from that used in previous years. The EMA has developed the Antimicrobial Sales and Use (ASU) Platform to support the mandatory collection and reporting of data on antimicrobial medicinal products in animals from across the European Union (EU) / European Economic Area (EEA). The platform requires that uploaded data be in a standardised format, facilitating data validation and calculation of antimicrobial amounts.

The requirements for the collection of the data are detailed in Regulation (EU) 2021/578, while Regulation (EU) 2022/209 establishes the format of the data to be collected and reported. Volume of sales data for veterinary antimicrobial products authorised in Ireland (including both medicines authorised nationally by the HPRA as well as those authorised centrally by the EU Commission) were collected. Veterinary antimicrobials authorised under special licence by the Department of Agriculture, Food and the Marine were also collected. The volume of sales data reported here includes those antimicrobial substances that fall under the mandatory scope as detailed in the Annex to Regulation (EU) 2021/578. That is, those substances with antibiotic activity that are intended for systemic, intramammary and intrauterine use.

For the purpose of collecting national data on the volume of sales of authorised veterinary antimicrobial medicinal products, Ireland has chosen marketing authorisation holders (MAHs) as data providers. Data for each presentation of their veterinary medicinal products must be uploaded to the Union Product Database (UPD). These data were then analysed for gaps, errors or inconsistencies and were corrected, where necessary, having consulted with the MAHs involved.

The HPRA analysis of the data in respect of individual substances of the same classes have been grouped together and classified under class headings. In this report the headings are as follows: penicillins, amphenicols, tetracyclines, fluoroquinolones, aminoglycosides, macrolides, lincosamides, sulfonamides and trimethoprim, cephalosporins and other classes. The EMA also publishes an annual report on the sales and use of veterinary antimicrobial medicinal products throughout Europe. Please note, as historical sales data are periodically updated to take into account errors or new information, discrepancies in values published between reports may be observed.

3. RESULTS

The volume of sales of veterinary antimicrobials (as active substance) in Ireland in 2024 was 75.96 tonnes, similar to that reported in 2023 (75.2 tonnes). For comparison purposes the sales over the period 2018 to 2024 are presented in Table 1 below.

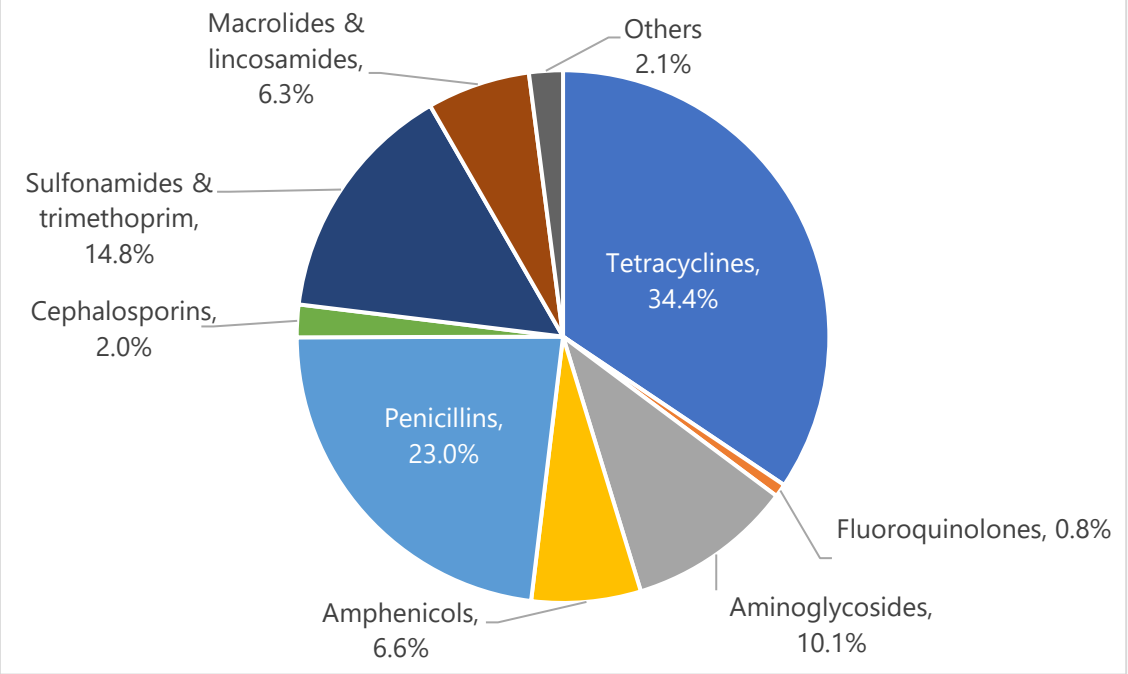
Table 1. Sales (tonnes sold of active substance) of veterinary antimicrobials for the years 2018 - 2024

	2018	2019	2020	2021	2022	2023	2024
Tonnes sold	99.4	88.3	103.9	94.2	76.5	75.2	76.0

The proportion of sales supplied into the market for 2024 by antimicrobial class can be found in Figure 1, with a comparison to previous years in Figure 2.

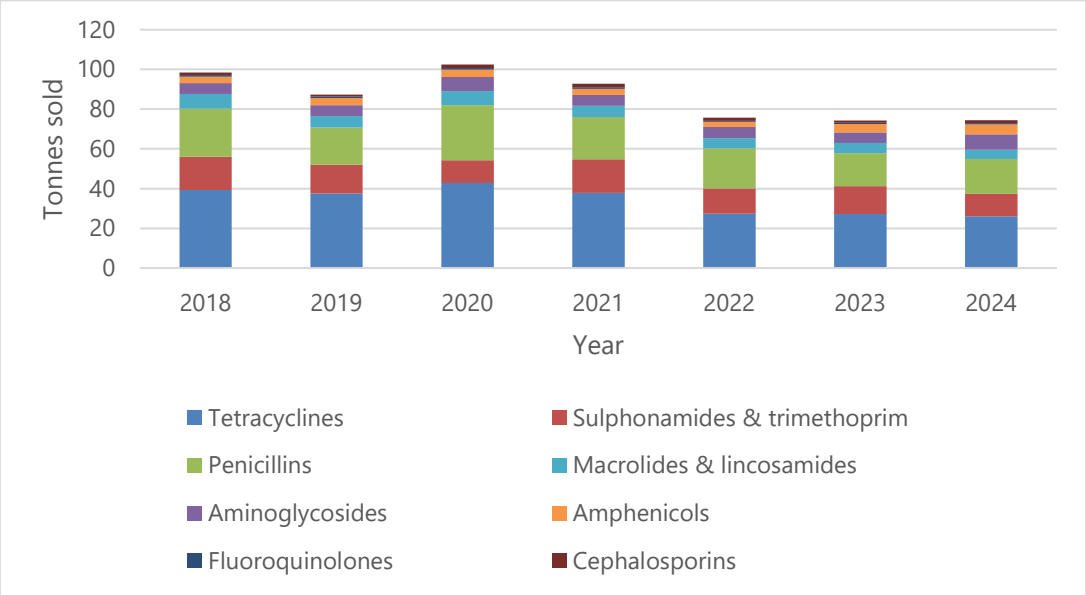
As shown in Figure 1, the antimicrobial classes with the largest sales were tetracyclines (34.4%), penicillins (23.0%), and the combination of sulfonamides and trimethoprim (14.8%).

Figure 1. Distribution of sales (based on tonnes sold) of veterinary antimicrobials by class supplied in 2024.



Others: Sum of pleuromutilins, imidazole derivatives and spectinomycin.

Figure 2. Sales (tonnes sold) of veterinary antibiotics (by class) for the years 2018 – 2024



The EMA's Antimicrobial Advice Ad Hoc Expert Group (AMEG) categorisation of antibiotics[1] include the World Health Organization's (WHO's) highest priority critically important antibiotics

[1] Categorisation of antibiotics in the European Union. Answer to the request from the European Commission for updating the scientific advice on the impact on public health and animal health of the use of antibiotics in animals (https://www.ema.europa.eu/en/documents/report/categorisation-antibiotics-european-union-answer-request-european-commission-updating-scientific_en.pdf)

[the 3rd and 4th generation cephalosporins, quinolones (fluoroquinolones, other quinolones) and polymyxins] in Category B ("Restrict"). That is, these restricted antibiotics should only be used for the treatment of clinical conditions in animals when there are no alternative antibiotics in a lower category that could be clinically effective. The other highest priority critically important class of antibiotics, macrolides, are included in Category C ("Caution") of the AMEG categorisation. Given the importance of these classes, they are reported separately in Table 2 below:

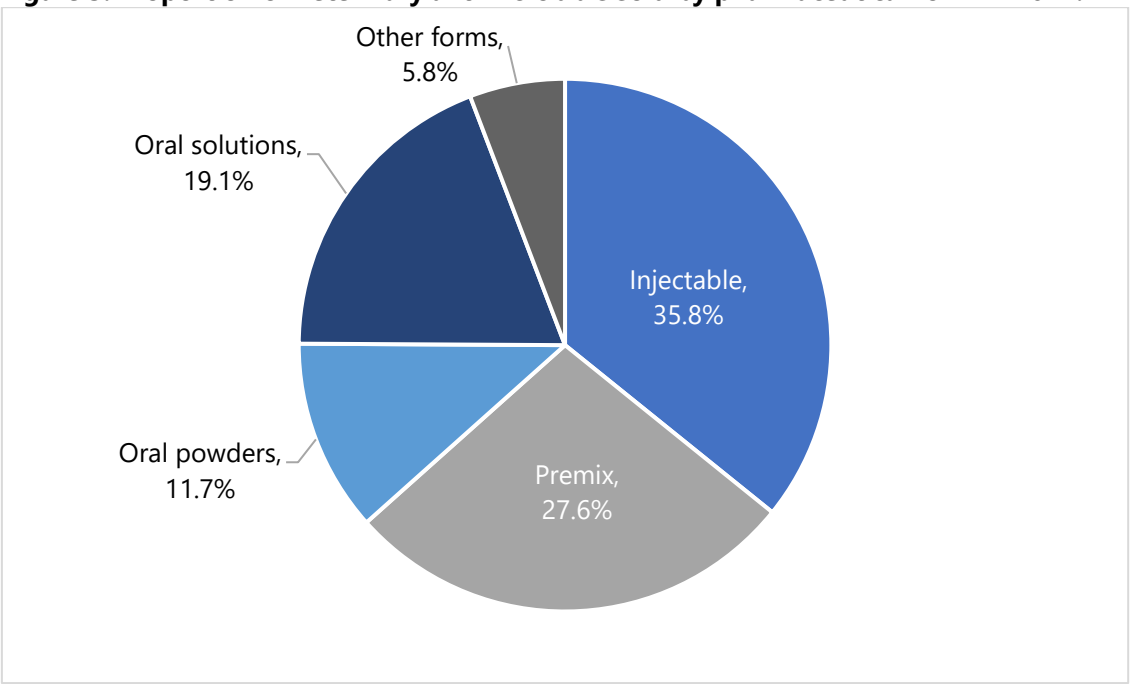
Table 2. Sales (tonnes sold of active substance) of 3rd and 4th generation cephalosporins, fluoroquinolones and macrolides for the years 2018 - 2024

	2018	2019	2020	2021	2022	2023	2024
3rd & 4th gen. cephalosporins	0.33	0.28	0.36	0.35	0.16	0.14	0.19
Fluoroquinolones	0.84	0.74	0.80	0.85	0.54	0.50	0.61
Macrolides	7.07	5.60	5.15	5.37	4.28	3.42	4.51

No sales of polymyxins (colistin) were recorded in 2024.

Injectables was the most commonly sold pharmaceutical form, accounting for 35.8% of the total sales (Figure 3). This was followed by premixes (27.6%), oral solutions (19.1%) and oral powders (11.7%). For the category 'Other forms' (5.8%), tablets, oral pastes and intrauterine products represented approximately 2.0%, 0.4% and 0.1% of total antimicrobial sales respectively, while intramammary products for drying-off and lactating cows accounted for 2.7% and 0.7%, respectively.

Figure 3. Proportion of veterinary antimicrobials sold by pharmaceutical form in 2024.



Other forms: tablets, oral pastes, intramammary and intrauterine products.

4. DISCUSSION

The volume of sales of veterinary antimicrobial products in 2024 (75.96 tonnes) was comparable to that reported in 2022 and 2023. While the data do not show a continuing year-on-year

decline in the overall antimicrobial sales, the 2024 figure remains substantially lower than the sales recorded pre-2022.

As in previous years, the antimicrobial classes with the largest sales were tetracyclines (34.4%), penicillins (23.0%), sulfonamides and trimethoprim (14.8%).

For the highest priority critically important antibiotics (3rd and 4th generation cephalosporins, fluoroquinolones and macrolides), increased sales relative to 2022 and 2023 values were observed. While this is an unexpected observation (noting the recent emphasis on reducing the use of HP-CIAs), it is the case that the figures reported for 2024 are substantially below volumes of sales reported pre-2022.

Compared to 2023, sales of injectable products increased by 20.9%, while sales of oral solutions and oral powders decreased by 20.3% and 7.0%, respectively. Sales of premixes remained essentially unchanged. While the increase in sales of injectable products and the decrease in sales of certain formulations for oral administration may suggest a move to more individual animal treatment rather than group treatment, this is not reflected in the overall volume of sales figure which remains unchanged relative to 2023.

The exact reasons for the changes in antimicrobial sales – in terms of either antimicrobial class or pharmaceutical form – observed in 2024 relative to 2023 are unclear. However, factors such as fluctuations in the volume of products entering the supply chain and product availability/shortages will potentially affect sales of antimicrobial products. Therefore, the data presented should be interpreted with caution.

5. CONCLUSION

While the data in this report suggests a slowdown in the rate of decline of antimicrobial sales in recent years, significant progress has nonetheless been made in reducing overall sales volumes since data recording began. The progress made to date can be attributed to the actions of the stakeholders involved in implementing Ireland's National Action Plans on Antimicrobial Resistance for 2017-2020 and 2021-2025 (iNAP1 and 2) as well as changes in veterinary medicine legislation relating to controls on the authorisation, supply and use of veterinary antimicrobials. However, the 2024 data highlights that the actions taken to date do not guarantee consistent year-on-year reductions in antimicrobial sales. Continued effort from all stakeholders is essential to maintain momentum and drive sales of antimicrobials downwards.

As noted in previous years, it is expected that the collection of antimicrobial usage data, under the aegis of DAFM, will provide greater insight into how these antimicrobial products are being used.

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