

Sales of veterinary antimicrobials in Ireland during 2023

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 2023. This work is conducted in conjunction with the EMA and the companies involved. Data on the volume of sales covers all sales in Ireland of the antimicrobials listed in the Annex to Regulation (EU) 2021/578, that is, substances with antibiotic effect, antifungals, antivirals and antiprotozoals.

The sales data provided in this report should be interpreted with caution; annual sales figures have been observed to fluctuate and such variation is regarded as normal. It should be noted that changes in animal demographics from one year to the next will also influence the demand for antimicrobials.

1.1 Methodology

The methodology used for the collection of volume of sales data for 2023 has 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. Unlike previous years, veterinary antimicrobials authorised under special licence by the Department of Agriculture, Food and the Marine were also collected.

For the purpose of collecting national data on the volume of sales of the 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 corrected 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 & trimethoprim, cephalosporins and other classes. The EMA will also publish 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.

1.2 Results

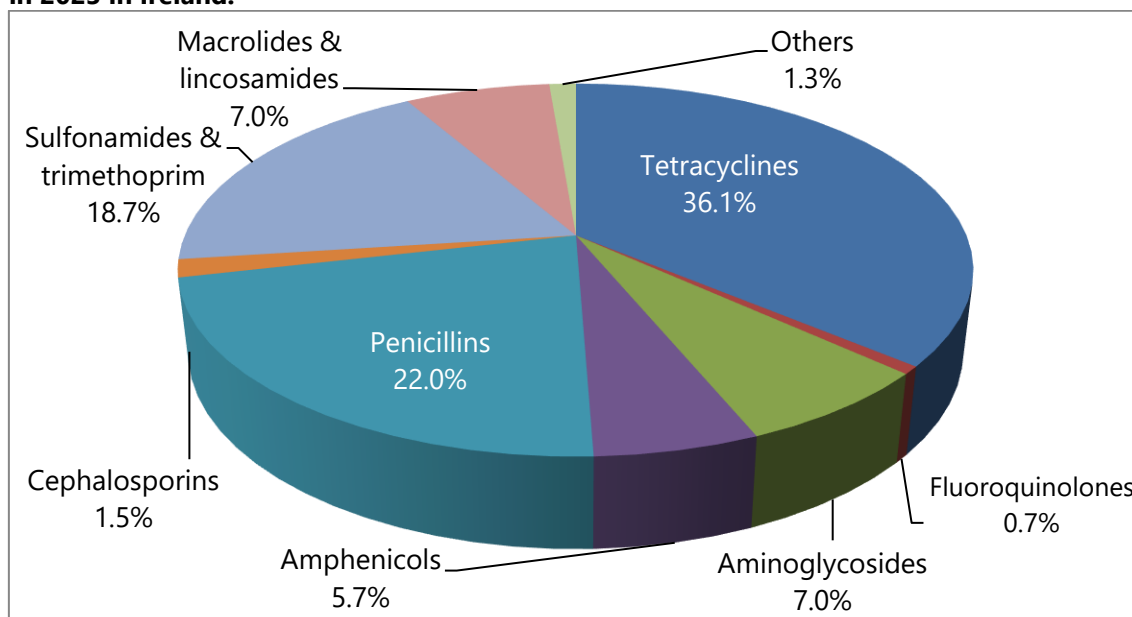
The quantity of veterinary antimicrobials (as active substance) sold in Ireland in 2023 was 75.2 tonnes. For comparison purposes the sales over the period 2017 to 2023 are presented in Table 1 below.

Table 1. Sales (tonnes sold of active substance) of veterinary antimicrobials for the years 2017 - 2023

	2017	2018	2019	2020	2021	2022	2023
Tonnes sold	99.7	99.4	88.3	103.9	94.2	76.5	75.2

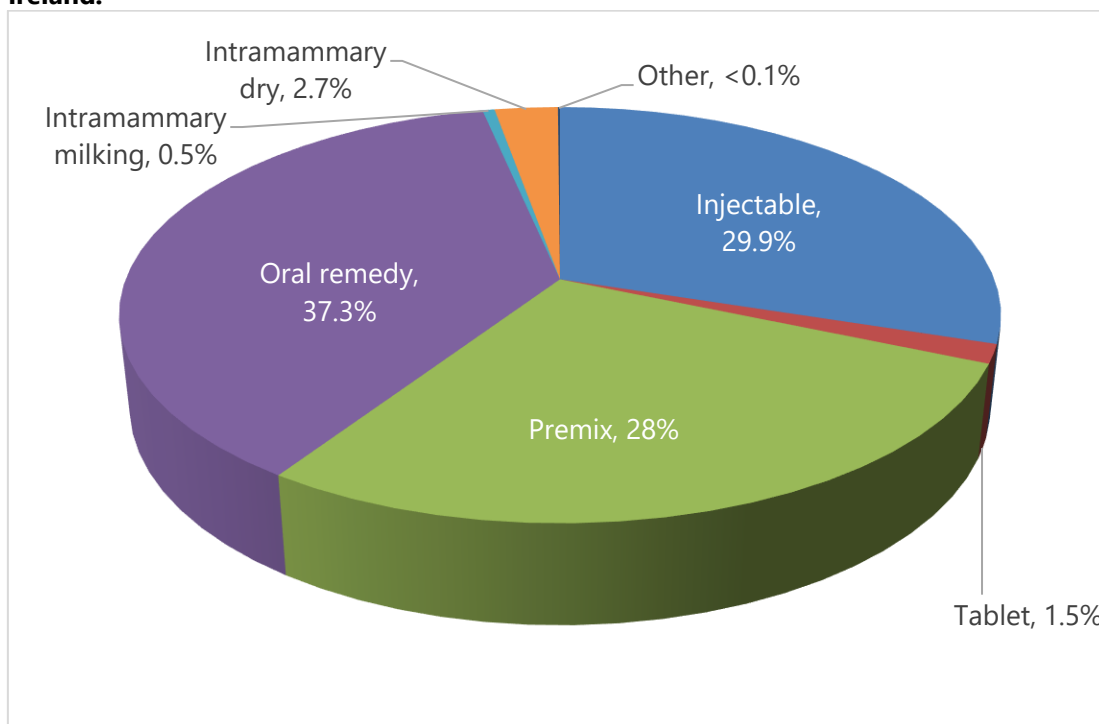
The proportion of sales supplied into the market for 2023 by antimicrobial class and by pharmaceutical form can be found in Figures 1 and 2, respectively:

Figure 1. Distribution of sales (based on tonnes sold) of veterinary antimicrobials supplied in 2023 in Ireland.



Others: Sum of pleuromutilins, imidazole derivatives and spectinomycin.

Figure 2. Pharmaceutical form breakdown of veterinary antimicrobials sold in 2023 in Ireland.



*Oral remedy: includes oral powders, pastes and solutions.

The European Medicines Agency’s Antimicrobial Advice Ad Hoc Expert Group (AMEG) review in 2019 of the categorisation of antibiotics¹ included the WHO’s highest priority critically important antibiotics [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, were 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 & 4th generation cephalosporins, fluoroquinolones and macrolides for the years 2017 - 2023

	2017	2018	2019	2020	2021	2022	2023
3 rd & 4 th gen. cephalosporins	0.30	0.33	0.28	0.36	0.35	0.16	0.14
Fluoroquinolones	0.85	0.84	0.74	0.80	0.85	0.54	0.50
Macrolides	7.17	7.07	5.60	5.15	5.37	4.28	3.42

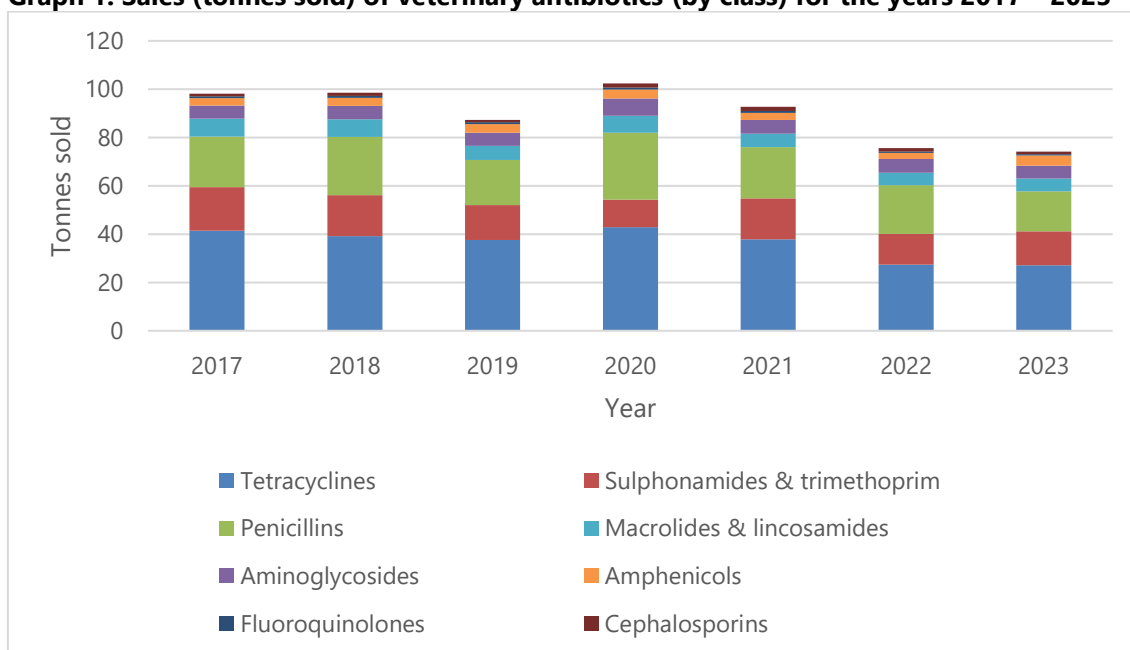
No sales of polymyxins (colistin) were recorded in 2023.

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)

1.3 Discussion

The volume of sales of veterinary antimicrobial products in 2023 decreased by 1.7% to 75.2 tonnes when compared to sales in 2022. However, as reporting now includes medicines granted special licence by DAFM, and noting that there have been some changes in methodology for calculating the quantity of certain active substances, a higher volume of sales for 2023 than would have been reported in previous years has been observed. The changes are estimated to account for an additional 1.6 tonnes of active substance.

Graph 1. Sales (tonnes sold) of veterinary antibiotics (by class) for the years 2017 – 2023



The modest decrease in volume of sales was primarily attributed to a reduction in sales of penicillins, with a continued decrease in sales of the highest priority critically important antibiotics also reported. In contrast, an increase in sales of sulphonamides and amphenicols was observed.

As shown in Figure 1, the highest selling antimicrobial classes were tetracyclines (36.1%), penicillins (22.0%), sulfonamides & trimethoprim (18.7%)

Following the significant decline in sales of antimicrobial premixes in 2022 (43.6%) a minor increase of 2.8% was observed in 2023. A decrease in sales of intramammary products for lactating cows of 18.2%, with intramammary products for drying off down 11.6% and injectables down 12.9% were reported. Within the oral remedies category, sales of oral solutions decreased by 6.7%, while sales of oral powders increased by 10.3%.

As noted in previous reports, restrictions such as limitations on off-label use by veterinary practitioners, updating labelling and package leaflets to curtail preventative use, and restriction on validity of antimicrobials prescriptions are expected to contribute further to reductions in veterinary antimicrobial use.

2 CONCLUSION

A continuing decrease in sales of antimicrobials was observed in 2023. While the decrease is more modest compared to that observed previously, the trend continues downwards.

The decrease in sales of the highest priority critically important antimicrobials highlights how responsible prescribing practices and improved animal health continue to reduce the need for these medicines. Campaigns aimed at farmers and practicing veterinarians on reducing use has driven this year-on-year trend. The effect of initiatives such as the national mastitis control programme, Cellcheck, and a move towards selective dry cow strategies can be seen in further reductions in sales of intramammary products.

The efforts of all stakeholders continue to drive sales of antimicrobials downwards, through greater knowledge, awareness and surveillance of AMR as well as improved antimicrobial usage and animal health. These efforts are underpinned by Ireland's second One Health National Action Plan on Antimicrobial Resistance 2021-2025 (INAP2) and EU legislation relating to controls on the authorisation, supply and use of veterinary antimicrobials. 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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