

Sales of veterinary antibiotics in Ireland during 2022

INTRODUCTION

This report presents the data collected by the Health Products Regulatory Authority (HPRA) for the year 2022, on the sales of veterinary antibiotics that are marketed in Ireland. This work is conducted in conjunction with the European Surveillance of Veterinary Antimicrobial Consumption (ESVAC) project, a European Commission initiative coordinated by the European Medicines Agency (EMA) and with the assistance of the companies involved. The data are based on the voluntary declarations by marketing authorisation holders on the supply of their products. The HPRA has been collecting these data since 2009. The ESVAC program has now concluded; in accordance with Regulation 2019/6, the collection of sales and use data on antimicrobials became a mandatory activity of Member States. In the case of Ireland, the Department of Agriculture, Food and the Marine is responsible for collecting and reporting usage data to the European Medicines Agency. The first report is expected in 2025, with data from 2023 and 2024.

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 antibiotics.

1.1 Methodology

Companies marketing veterinary antibiotics in Ireland were requested to submit annual returns for quantities of individual presentations of product supplied in the State during 2022. Sales data for veterinary antibiotic medicines authorised in Ireland (including both medicines authorised nationally by the HPRA as well as those authorised centrally by the EU Commission) were collected. These covered 52 individual antibiotic substances. The data are based on self-declarations by applicant companies and have not been subject to independent verification or audit. It should be noted that certain other veterinary antibiotics (such as those authorised under special licence by the Department of Agriculture, Food and the Marine) and human antibiotics (which might be prescribed or used by veterinary practitioners where there is not a suitable veterinary alternative authorised) were not included in this analysis. However, the contribution from these sources to the overall figure is likely to be very small.

The data were collated by the HPRA and reviewed for discrepancies before being entered into the ESVAC database for additional validation. The methodology for collection is a harmonised approach that is followed in each of the European Member States. The analysis of the data in respect of individual substances of the same antibiotic classes have been grouped together and classified under the appropriate 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 also publishes an annual report on the sales of veterinary antibiotics 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 antibiotics (as active substance) sold in Ireland in 2022 was 76.5 tonnes. For comparison purposes the sales over the period 2013 to 2022 are presented in Table 1 below.

Table 1. Sales (tonnes sold) of veterinary antibiotics for the years 2013 - 2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Tonnes sold	99.1	89.4	96.9	103.4	99.7	99.4	88.3	103.9	94.2	76.5

The proportion of sales supplied into the market for 2022 by antibiotic classes and by pharmaceutical form can be found in Figure 1 and 2, respectively:

Figure 1. Distribution of sales (based on tonnes sold) of veterinary antibiotics supplied in 2022 in Ireland.

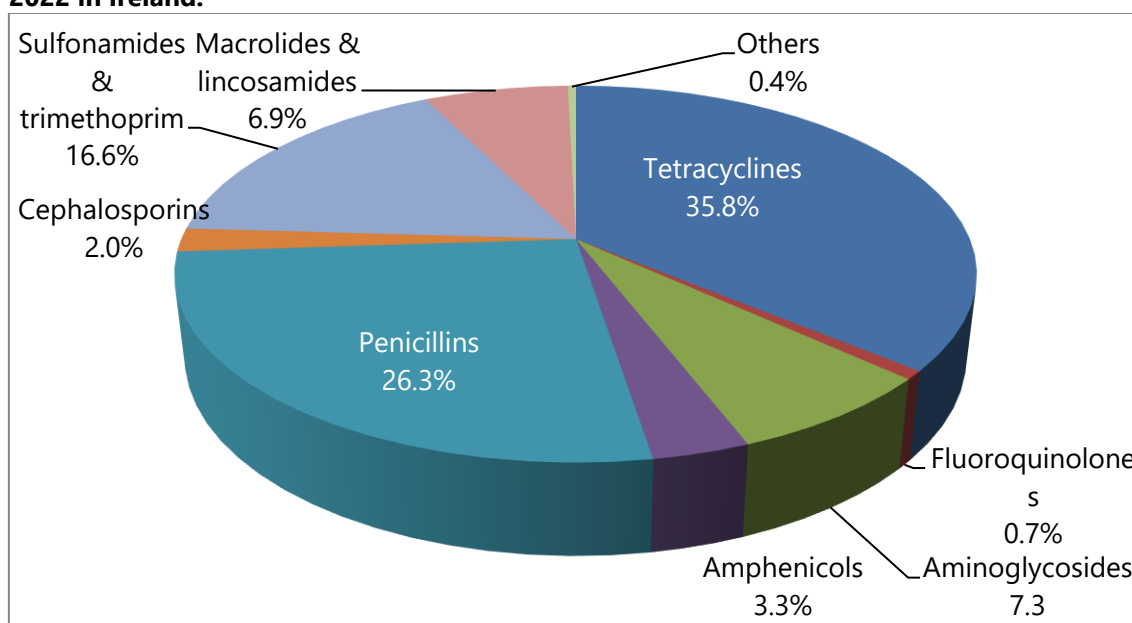
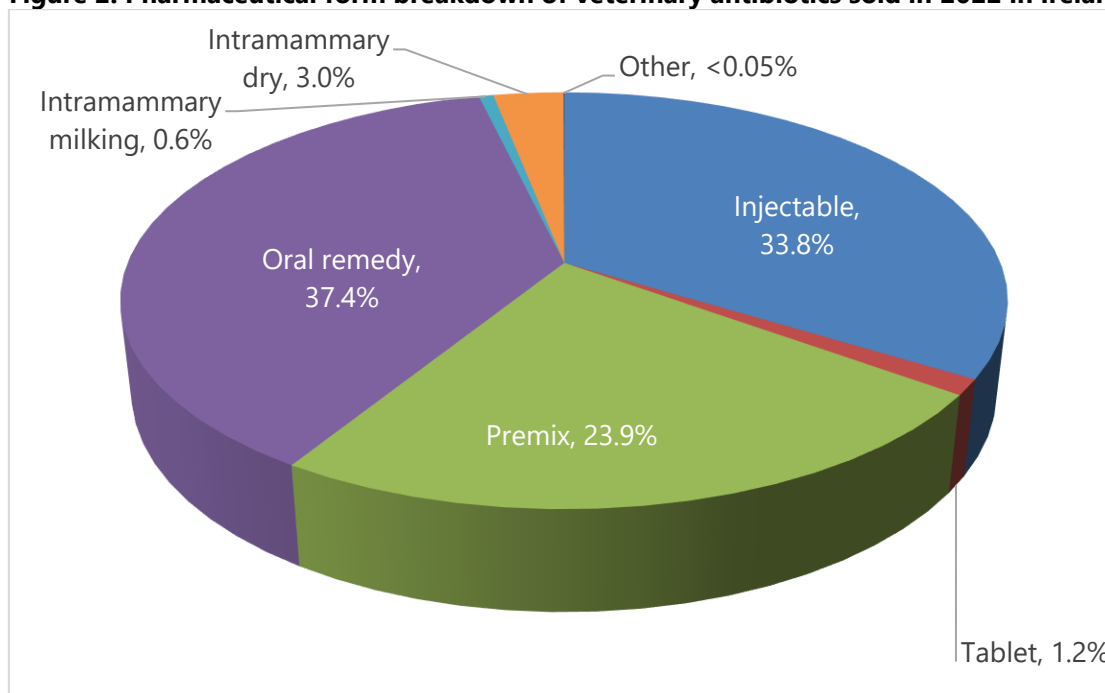


Figure 2. Pharmaceutical form breakdown of veterinary antibiotics sold in 2022 in Ireland.



*Oral remedy: includes oral powders, pastes, boluses 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 3rd & 4th generation cephalosporins, fluoroquinolones and macrolides for the years 2014 - 2022

	2014	2015	2016	2017	2018	2019	2020	2021	2022
3 rd & 4 th gen. cephalosporins	0.24	0.22	0.25	0.30	0.33	0.28	0.36	0.35	0.16
Fluoroquinolones	0.69	0.79	0.94	0.85	0.84	0.74	0.80	0.85	0.54
Macrolides	6.26	5.58	6.58	7.17	7.07	5.60	5.15	5.37	4.28

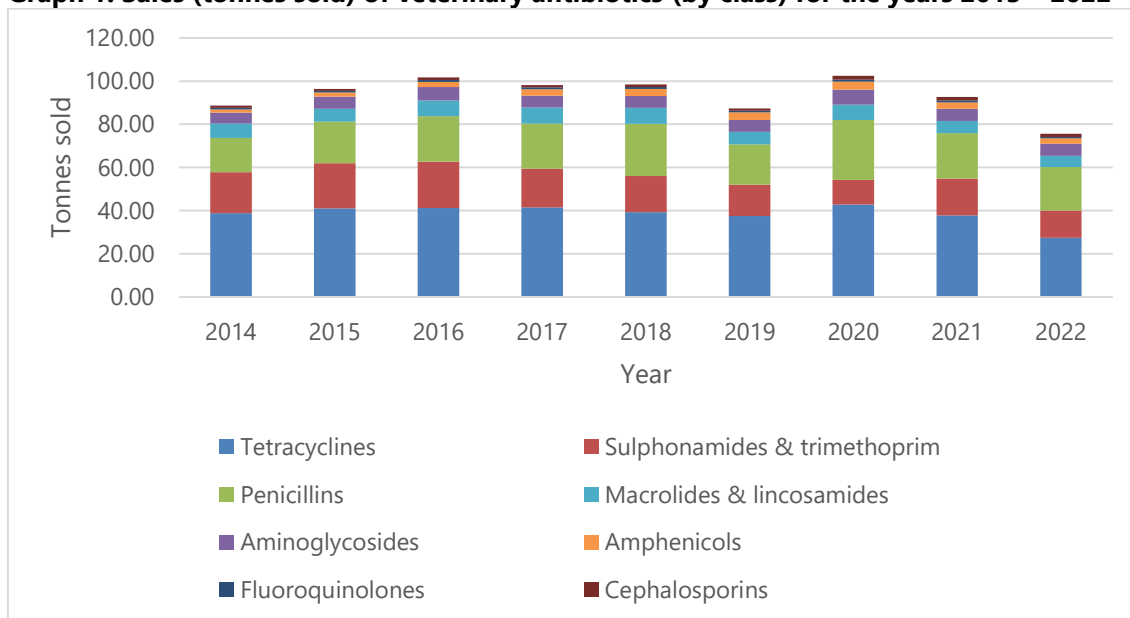
No sales of polymyxins (colistin) were recorded in 2022.

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

Overall sales of veterinary antibiotics in 2022 decreased by 18.8% to 76.5 tonnes when compared to sales in 2021.

Graph 1. Sales (tonnes sold) of veterinary antibiotics (by class) for the years 2013 – 2022



The significant decline in sales of veterinary antibiotics is welcome, given the target in the European Green Deal and the Farm to Fork strategy for a 50% reduction in sales of antimicrobials for farmed animals and in aquaculture in the European Union by 2030 in comparison to the reference year 2018. The decline in 2022, which has continued from the previous year, is evident in respect of all antimicrobial classes save the aminoglycosides (which remained at the same level), but importantly in the highest priority critically important antibiotics.

The supply of oral antibiotic premixes declined by 43.6% in 2022, with intramammary dry cow antibiotics reduced by 24.4% and injectable antibiotics reduced by 7.6%. Changes in respect of tablets and other intramammary antibiotics were less than 7%. Within the oral remedies category, sales of oral solutions increased by 7.9%, while sales of oral powders decreased by 18.4%.

Whilst many actors play a part in bringing about this result, it is fair to point out that the publicity surrounding the introduction of new restrictions on veterinary antibiotics under Regulation 2019/6, including the launch of the Veterinary Council's Code of Professional Conduct and political debate in the Oireachtas has helped focus attention on reducing the use of veterinary antibiotics. The ongoing work by the National Interdepartmental AMR Consultative Committee and the iNAP Animal Health Implementation Committee in supporting responsible use of antibiotics in Ireland as well as development of codes of good practice on use of antibiotics on farms by Animal Health Ireland are also important in helping raising awareness and in promoting behavioural changes to antibiotic use on farms. The new EU rules governing the validity of an antibiotic prescription (now restricted to 5 days, previously one year) has also been a major milestone. There has been a significant reduction in the use of medicated feeds prepared from antibiotic premixes. However, it is not known if this is solely due to improved prescribing practices, or a switch to other forms of oral antibiotic medicines or related to some extraneous factor such as consolidation and increased specialisation of pig production.

During the course of 2023 and 2024, further restrictions on veterinary antibiotics will be manifest, including:

- Updating of labelling and package leaflets of veterinary antibiotics to remove any indication for preventative use (antibiotics are not to be used for prophylaxis other than in exceptional cases, for the administration to an individual animal or a restricted number of animals when the risk of an infection or of an infectious disease is very high and the consequences are likely to be severe),
- New EU legislation on off-label use of veterinary antibiotics by veterinary practitioners,
- Initiation of collection of use data on antibiotics used in cattle, pigs, chickens and turkeys in 2023, with reporting to the EMA from 2024 onwards.

It is expected that these efforts will drive further changes in the years ahead.

2 CONCLUSION

The 2022 sales data for veterinary antibiotics in Ireland reveal a significant decline of 18.8% compared to the previous year, which itself had seen a decrease of 9.3% on 2020. This trend is particularly encouraging, as it aligns with the European Green Deal and the Farm to Fork strategy, aiming for a 50% reduction in antimicrobial use in farmed animals and aquaculture by 2030, based on the 2018 reference year.

Notably, this decline extends across all antimicrobial classes, including the highest priority critically important antibiotics. The reduction is even more pronounced in specific medicine categories, such as the supply of oral antibiotic premixes, which decreased by 43.6% in 2022, intramammary dry cow antibiotics, down by 24.4%, and injectable antibiotics, which decreased by 7.6%.

The collective efforts of various stakeholders, including the Veterinary Council's Code of Professional Conduct, political discourse in the Oireachtas, and initiatives like the National Interdepartmental AMR Consultative Committee have played a pivotal role in raising awareness amongst stakeholders and encouraging behavioural shifts in antibiotic use on farms. The introduction of new EU legislation, which shortened the validity of antibiotic prescriptions to just five days, is another significant milestone in achieving this result.

Looking ahead, Ireland in common with other EU Member States is set to implement further restrictions on veterinary antibiotic use, such as updating labelling and package leaflets to curtail preventative use, limitations on off-label use by veterinary practitioners, and the initiation of data collection on antibiotic usage in specific livestock categories. This latter measure will help provide insights into areas of excess usage for further attention and future focus. It will be important to maintain commitment to responsible antibiotic use in animals to solidify Ireland's position in global animal food production as well as in promoting sustainable agricultural practices.

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