

Report on consumption of veterinary antibiotics in Ireland during 2018

INTRODUCTION

This report presents the data collected by the Health Products Regulatory Authority (HPRA) during 2018, on the consumption of veterinary antibiotics that are marketed in Ireland. This survey was 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 consumption data provided in this report should be interpreted with caution; annual consumption 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

As for previous years, companies marketing veterinary antibiotics in Ireland were requested to submit annual returns for quantities of individual presentations of product supplied in the State during 2018. The data to be provided were described in a format prescribed by the ESVAC protocol (www.ema.europa.eu). Sales data from over 530 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 50 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. Any anomalies identified were investigated further. 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, sulphonamides & trimethoprim (TMP), cephalosporins and other classes. The EMA also publishes an annual report on the sales of veterinary antibiotics throughout Europe.

1.2 Results

The total tonnage of veterinary antibiotics sold in Ireland was 99.4 tonnes in 2018. These results are broken down by antibiotic classes supplied into the market in Figure 1 and by pharmaceutical form in Figure 2 below:

Figure 1. Distribution of sales (based on tonnes sold) of veterinary antibiotics supplied in 2018 in Ireland.

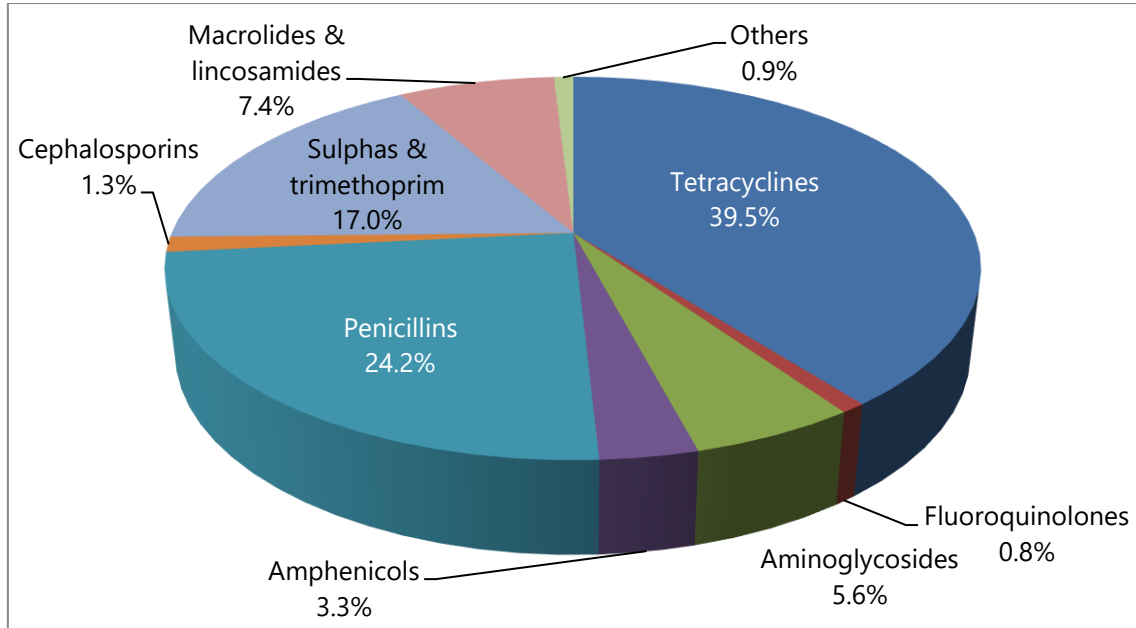
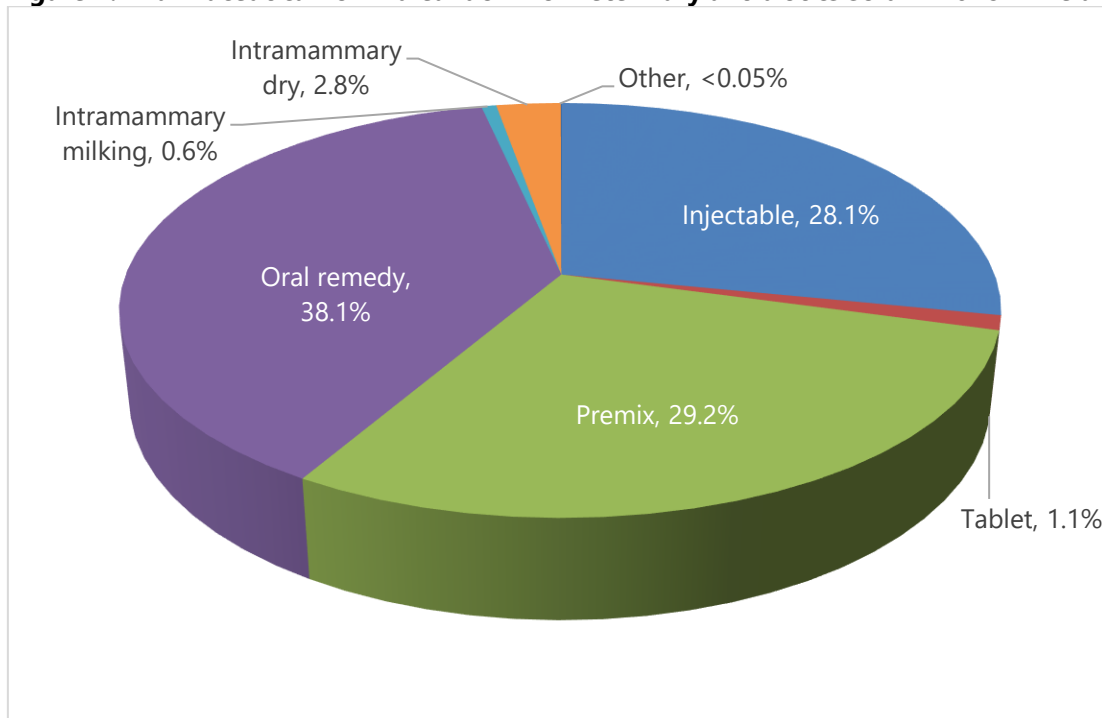


Figure 2. Pharmaceutical form breakdown of veterinary antibiotics sold in 2018 in Ireland.



1.3 Discussion

The sales of veterinary antibiotics in 2018 remained consistent with previous years (Table 1).

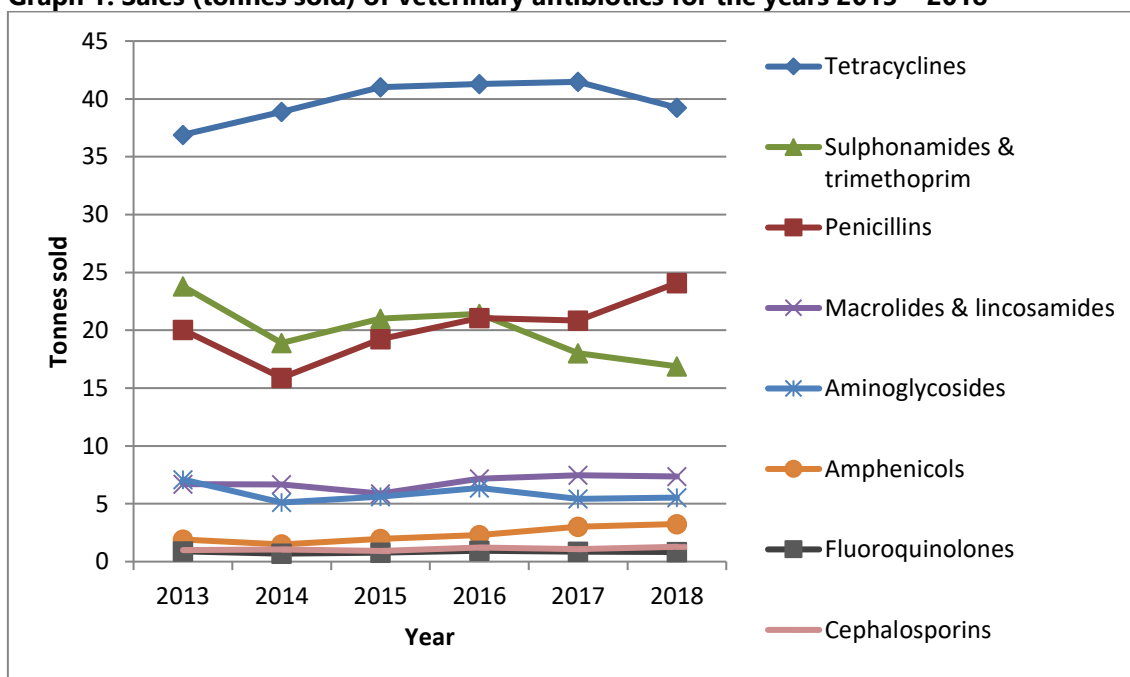
Table 1. Sales (tonnes sold) of veterinary antibiotics for the years 2013 - 2018

	2013	2014	2015	2016	2017	2018
Tonnes sold	99.1	89.4	96.9	103.4	99.7	99.4

The proportion of pharmaceutical forms (i.e. presentations of product) supplied to the market remained similar to previous years. A small shift from premixes to other oral remedies (oral pastes, powders and solutions) was observed (Figure 2).

Further investigation into the sales of individual veterinary antibiotic classes showed fluctuations from year to year. This variation can be due to a number of factors, such as seasonal disease prevalence, prescribing preferences, drug pricing as well as logistical factors (e.g. the precise timing of end of year transactions for individual antibiotics, quantities of product stored in veterinary practices, at feed mills or on farms etc.).

Graph 1. Sales (tonnes sold) of veterinary antibiotics for the years 2013 – 2018



In relation to the general sales trends for the different classes of antibiotics, a decrease in sales of tetracyclines and sulphonamides in combination with trimethoprim was observed. In contrast, sales of penicillins increased. This was primarily attributed to an increase in sales of penicillins with extended spectrum. Tetracyclines accounted for the greatest proportion of sales (39.5%), followed by penicillins (24.2%) (Figure 1). Much smaller quantities of the critically important antibiotics, 3rd and 4th generation cephalosporins, fluoroquinolones, polymixins and macrolides were sold compared to these other classes. However, it should be noted that smaller quantities of these antibiotics are required to treat animals as the drugs are more potent and are used therefore in lower dosages.

The sales of the critically important antibiotics, 3rd and 4th generation cephalosporins, fluoroquinolones and macrolides are provided in more detail below. Due to the low number of products authorised on the market in Ireland, sales of polymixins (colistin) cannot be reported here for reasons of commercial confidentiality.

From Table 2 below it can be seen that an increasing trend in sales of 3rd & 4th generation cephalosporins continues. The sales of macrolides and fluoroquinolones are effectively unchanged from 2017.

Table 2. Sales (tonnes sold) of 3rd & 4th generation cephalosporins, fluoroquinolones and macrolides for the years 2013 - 2018

	2013	2014	2015	2016	2017	2018
3 rd & 4 th gen. cephalosporins	0.17	0.24	0.22	0.25	0.30	0.33
Fluoroquinolones	0.89	0.69	0.79	0.94	0.85	0.84
Macrolides	6.25	6.26	5.58	6.58	7.17	7.07

1.4 Future developments

The European legislation (Regulation (EU) 2019/6, which has already been adopted but which has an application date of January 2022) will place further restrictions on the use of veterinary antibiotics. The aim of the legislation is to control antimicrobial resistance (AMR). In the future, veterinary antibiotics will not be allowed for routine use in animals to compensate for poor disease control practices or lapses in good farm management. In particular, they will not be allowed for use for preventative purposes to control disease. Furthermore, under the new regulation, the European Commission has been mandated to elaborate further legislative restrictions governing the use of veterinary antibiotics, including designating certain classes of antibiotics for exclusive use for treatment of infections in humans. Additional measures to gather national data on the use of antibiotics at farm level are also foreseen. These new developments are, in due course, expected to have a significant impact on the prescribing and use of veterinary antibiotics in this country.

2 CONCLUSION

The overall sales of veterinary antibiotics remained largely unchanged for 2018 from the position in 2017. Increases in use of extended spectrum penicillins and the critically important 3rd and 4th generation cephalosporins were reported. The HPRA notes that initiatives to encourage prudent use of antimicrobials as part of Ireland's National Action Plan on Antimicrobial Resistance 2017-2020 have been undertaken and expects that they will result in a reduction in sales of veterinary antibiotics over the coming years.

As part of the new veterinary regulation (Regulation (EU) 2019/6), which comes into force in January 2022, the collection of veterinary antibiotic sales will be complemented by data on the use of veterinary antibiotics in animal species, collected by the Department of Agriculture, Food and the Marine. This will provide a better understanding of how veterinary antibiotics are used in Ireland, and will facilitate the introduction of more effective measures to regulate their use. Moreover, additional restrictions on the use of veterinary antibiotics are expected as new complementary EU legislation on AMR control is introduced over the coming years.

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