

Report on consumption of veterinary antibiotics in Ireland during 2014

INTRODUCTION

This sixth report presents the annual survey conducted by the Health Products Regulatory Authority (HPRA) on the sales of veterinary antibiotics 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).

As noted in the previous reports, the consumption data provided in this report should be interpreted with caution; annual consumption figures fluctuate and are subject to various extraneous factors, which are discussed in the body of this report. It should also be noted that the data are based on the voluntary declarations by marketing authorisation holders of supply of their products. Even though these declarations are made in good faith they are not subject to independent audit verification.

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 2014. The data to be provided were described in a format prescribed by the ESVAC protocol (www.ema.europa.eu). Data were collected from a total of 54 individual antibiotic substances contained in over 800 product presentations which have been authorised for use in Ireland (including both medicines authorised nationally by the HPRA as well as those authorised centrally by the EU Commission). 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 no suitable veterinary alternative authorised) were not included in this analysis. However, the contribution from these sources 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 validation. This harmonised approach is followed in each of the European Member States. In conformity with ESVAC protocol, 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.

1.2 Results

The total tonnage of veterinary antibiotics used in Ireland was 90.2 tonnes in 2014. 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 2014 in Ireland.

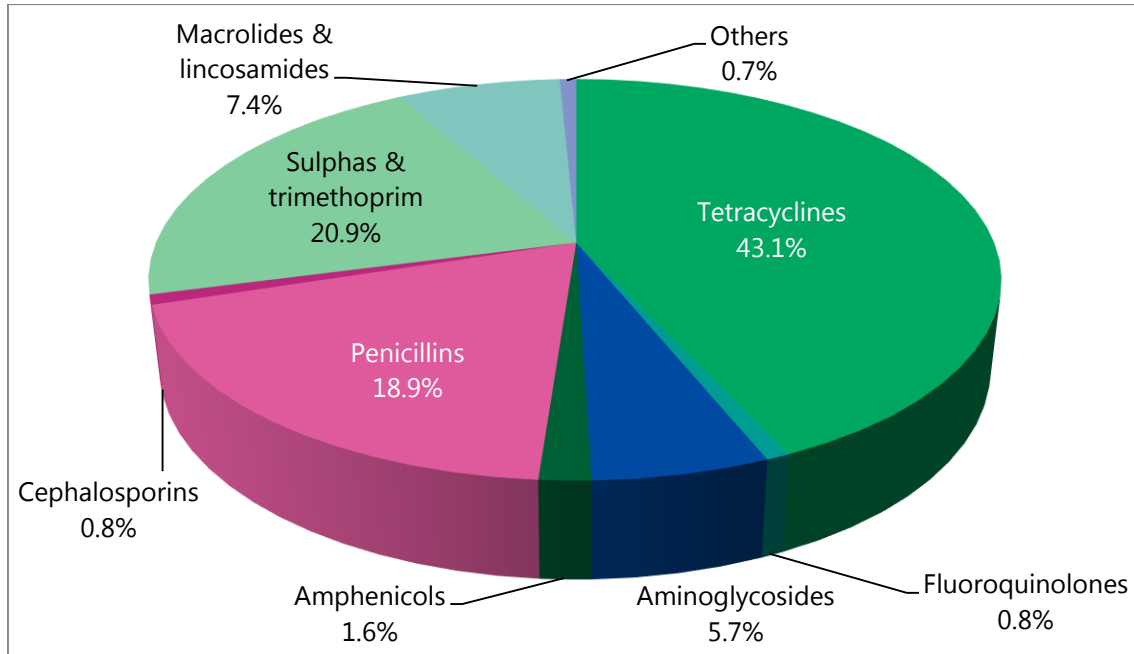
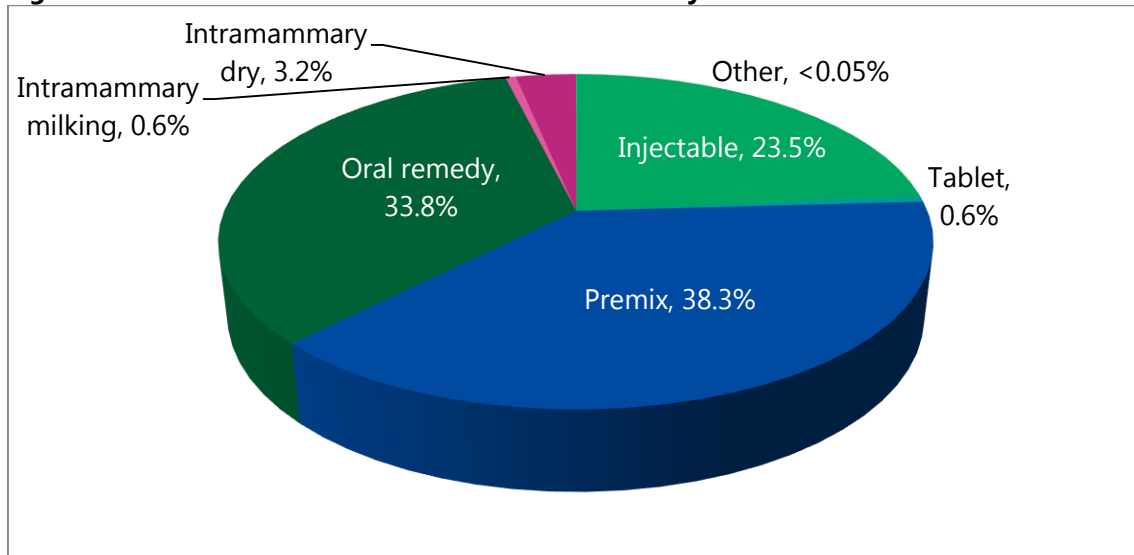


Figure 2. Pharmaceutical form breakdown of veterinary antibiotics sold in 2014 in Ireland.



1.3 Discussion

The data for 2014 indicates that antibiotic sales decreased by 10 tonnes when compared to 2013, and remain within the range recorded over the last 5 years (as indicated in Table 1). The reasons for the volatility in the annual consumption levels are unknown, and might be due to a number of factors, such as:

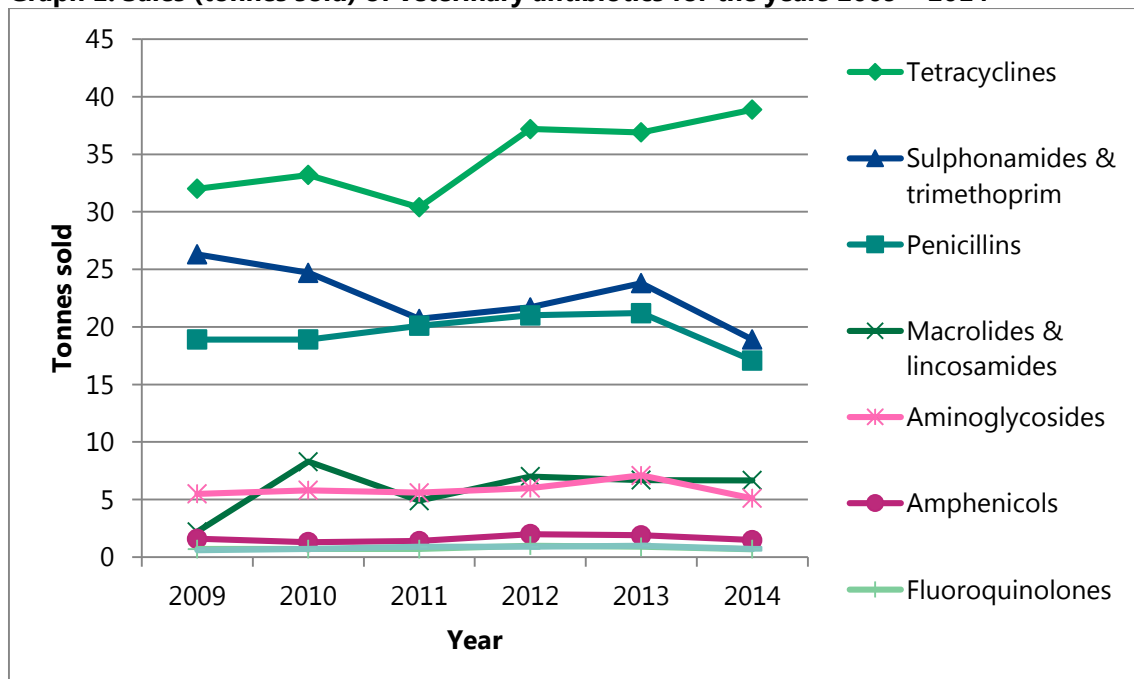
- Seasonal disease prevalence;
- The precise timing of end of year transactions for individual antibiotics;
- Quantities of product held in the supply chain (e.g. stored in veterinary practices, at feed mills or on farms);
- Changes in the size of the national herd;
- Export of veterinary medicines for use outside the State; or
- Changes in the class of antibiotic being prescribed. Some [newer] antibiotic classes are more potent [on a unit weight basis] than others and the dosage for these may be much lower than for other [older] antibiotic classes.

Table 1. Sales (tonnes sold) of veterinary antibiotics for the years 2009 - 2014

	2009	2010	2011	2012	2013	2014
Tonnes sold	88.3	93.9	85.3	97.4	100.2	90.2

When reviewing the data particular notice is given to the critically important antibiotics, namely 3rd and 4th generation cephalosporins, fluoroquinolones and macrolides. This is due to the fact that much smaller quantities of these antibiotics are required to treat animals and thus make up a much smaller percentage of the overall tonnage used. Graph 1 below shows that the sale of these critically important antibiotics have remained relatively unchanged.

Graph 1. Sales (tonnes sold) of veterinary antibiotics for the years 2009 – 2014



The overall proportion of antibiotic sales for the different classes remains generally similar to previous years. However, there was a significant increase in the sale of tetracyclines, while there were decreases in the sales of sulphonamides and trimethoprim, penicillins, and, to a lesser extent, the aminoglycosides.

The proportion of pharmaceutical forms (i.e. presentations of product) supplied to the market remained consistent with previous years with only minor changes observed (Figure 2). Premixes and oral remedies (oral pastes, powders, solutions and boluses) accounted for 38.3% and 33.8%

of sales, respectively. The next major group consisted of injectable products accounting for 23.5% of sales.

Of the over 500 authorised products where data was supplied, no sales were reported for 268 products. Ireland is a relatively small market for veterinary medicinal products and not all authorised products are marketed. Moreover, not all presentations of the authorised medicines are marketed (some presentations might not suit Irish market needs). The reason that certain products are authorised but not currently marketed may be due to individual company marketing plans, or logistical reasons or for strategic reasons (such as supporting the authorisation of the products concerned in international markets).

2 CONCLUSION

There has been a decline in the consumption of veterinary antibiotics in Ireland in 2014. Although welcome (as antibiotic use is seen as a key driver of antimicrobial resistance), the decline may be serendipitous and should be interpreted with caution as it is within the historical range which fluctuates significantly each year.

The sales data collected provide a broad picture on which antibiotics are being used for the treatment of animals in Ireland and serve as a benchmark for future analysis on the impact of European risk management measures that are intended to address the global challenge of antimicrobial resistance. Currently it is not possible to link the national consumption data with usage in the different target species (many products are indicated for use in two or more species), but this challenge is being further considered and initiatives to address this data gap are expected to be developed by the European Commission in the future.

The HPRA will continue to collect and report on the national sales of veterinary antibiotics as well as contributing to the work conducted by ESVAC and to the elaboration and implementation of risk management measures deemed necessary by the European Commission. The ultimate goal is to ensure the responsible use of antibiotics so that they can continue to be used for animal treatment when necessary but preserving their efficacy into the future. This must be achieved in the context of responding to the global threat of antimicrobial resistance.