Report on consumption of veterinary antibiotics in Ireland during 2015

INTRODUCTION

This report presents the data collected during 2015 on the consumption of veterinary antibiotics in Ireland by the Health Products Regulatory Authority (HPRA). 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 the companies marketing the veterinary antibiotics.

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. As a consequence, minor errors in the data reported are possible.

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 2015. 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 55 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. 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 96.7 tonnes in 2015. 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 2015 in Ireland.**

- Tetracyclines: 42.3%
- Fluoroquinolones: 0.8%
- Aminoglycosides: 5.8%
- Amphenicols: 2.0%
- Penicillins: 19.8%
- Cephalosporins: 1.0%
- Sulphas & trimethoprim: 21.7%
- Macrolides & lincosamides: 6.1%
- Others: 0.6%

**Figure 2. Pharmaceutical form breakdown of veterinary antibiotics sold in 2015 in Ireland.**

- Injectable: 25.3%
- Oral remedy: 32.6%
- Premix: 38.2%
- Tablet: 1.2%
- Intramammary dry: 2.1%
- Other, <0.05%
- Intramammary milking: 0.5%
1.3 Discussion

The data collected indicates that sales of veterinary antibiotics increased by approximately 6 tonnes in 2015 (Table 1). From the table below it can be seen that the overall tonnage fluctuates from year to year.

### Table 1. Sales (tonnes sold) of veterinary antibiotics for the years 2009 - 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnes sold</td>
<td>88.3</td>
<td>93.9</td>
<td>85.3</td>
<td>97.4</td>
<td>100.2</td>
<td>90.6</td>
<td>96.7</td>
</tr>
</tbody>
</table>

An investigation of sales on a class basis, highlights that tetracyclines comprise a substantial portion of overall tonnage, representing 42.3% of the total (Figure 1). This was marked by a continued increasing trend in sales when compared to previous years. The sales of sulphonamides and trimethoprim increased from those observed in 2014 but remained consistent with the general trend observed in the previous years. The overall proportion of sales based on tonnes sold remained relatively unchanged. In particular, the sales of the critically important antibiotics, 3rd & 4th generation cephalosporins, fluoroquinolones and macrolides remained within the ranges observed previously (Graph 1).

### Graph 1. Sales (tonnes sold) of veterinary antibiotics for the years 2009 – 2015

The proportion of pharmaceutical forms (i.e. presentations of product) supplied to the market remained similar with previous years with only minor changes observed (Figure 2). Premixes and oral remedies (oral pastes, powders, solutions and boluses) accounted for 38.2% and 32.6% of sales, respectively. The next major group consisted of injectable products accounting for 25.3% of sales.

The range of veterinary antibiotic products in Ireland continues to expand with an additional 22 products authorised. This was offset by a small number of products being withdrawn. However, it should be noted that not all authorised products are marketed. These authorisations may support
the marketing of the products in international markets or may be held by the companies concerned for strategic or commercial purposes.

2 CONCLUSION

An increase in the overall sales of veterinary antibiotics was recorded for the year 2015, this remained within the historical range. As noted in previous reports, fluctuations in sales are expected, with factors such as seasonal disease prevalence, changes in the size of the national herd or product held in the supply chain between years among the many factors that can influence the changes.