

Sales data of veterinary antimicrobial agents in Germany

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Resistance against antimicrobial agents is an increasing problem in human as well as in veterinary medicine. The widespread use of antimicrobial agents in food-producing animals is often pointed out as a special risk factor for the development and spread of antimicrobial resistance. Nevertheless, the scientific proof about the transmission ways of resistance between humans and animals is still outstanding. The need for further investigations to identify and quantify the risk of developing and spreading antibiotic resistance is obvious.

In Germany, in veterinary medicine the first step of research is taken in collecting sales data of antimicrobial veterinary products. This was already decided for the entire EU in the “Copenhagen Recommendations” in 1998. The European Surveillance of Veterinary Antimicrobial Consumption (ESVAC) project was launched by the European Medicines Agency (EMA) in September 2009, following a request from the European commission to develop a harmonised approach for the collection and reporting of data on the use of antimicrobial agents in animals from the Member States. For the reporting period 2005 - 2009 “Trends in the sales of veterinary antimicrobial agents in nine European countries” were published. In 2012 the EMA published “Sales of veterinary antimicrobial agents in 19 EU/EEA countries in 2010” (second ESVAC report). For 2011 data from 27 European countries (including Germany for the first time) is expected to be submitted to the ESVAC project.

In Germany, a legal basis for obtaining national sales data from marketing authorisation holders and authorized dealers to end users (veterinarians) was established in February 2010 (Verordnung über das datenbankgestützte Informationssystem über Arzneimittel des Deutschen Instituts für Medizinische Dokumentation (DIMDI) und Information (DIMDI-Arzneimittelverordnung - DIMDI-AMV)). DIMDI collected the data and the Federal Office for Consumer Protection and Food Safety (BVL) evaluates and provides the validated data to the ESVAC project. The sales data are submitted at package level and as a special feature in Germany with the first two figures of the postal code.

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In 2011, pharmaceutical enterprises and wholesalers sold 1706 tons antimicrobial agents in Germany. The antimicrobial compound class with the highest sales volume were tetracyclines with 564 tons, followed by aminopenicillins with 501 tons, sulfonamides with 185 tons, makrolides with 173 tons, and polypeptides with 127 tons. 47 tons of aminoglycosides were sold, 30 tons of trimethoprim, 27 tons of other penicillins, 17 tons of lincosamides and 14 tons of pleuromutilins. Interestingly, only 8 tons of fluoroquinolones and only 3.5 tons of cephalosporins of the third and fourth generation were sold. These data reflect that huge amounts of so-called “old” antimicrobial agents are sold in the veterinary medicine, while fluoroquinolones and cephalosporins of the third and fourth generation only play an inferior role by total volume.

The data summarize the amounts of antimicrobial agents sold to veterinarians, but cannot be differentiated in amounts used for different animal species. In the ESVAC project, data is broken down by a population correction unit (PCU) used as a proxy for the size of the animal population. With this approach the amounts of veterinary antimicrobial agents sold in the different countries are linked to the animal demographics in each country. For the future it is planned to additionally collect data on consumption of antimicrobial agents per animal species.