



# COMPANION ANIMAL

Royal Canin Student Award



## Working towards antimicrobial stewardship at the department of Clinical Sciences of Companion Animals at Utrecht University

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### Introduction

Promoting antimicrobial stewardship in small animal veterinary medicine has been regarded to be of importance in decreasing the emergence and spread of antimicrobial resistance. (1) The aim of this research project was to support the development of an antimicrobial stewardship program at the department of Clinical Sciences of Companion Animals (CSCA) at Utrecht University.

### Materials and Methods

Antimicrobial drug dispensing data and bacterial culture and antimicrobial susceptibility testing data from January 2013 through December 2017 were retrospectively reviewed and processed to describe and quantify the antimicrobial consumption and to evaluate the proportion of multidrug-resistant bacteria isolated from animal patients presented at the CSCA, respectively. The antimicrobial consumption was expressed in defined daily doses animal (DDDA). (2) Both a cross-sectional survey and face-to-face semi-structured interviews were conducted among staff members working at the CSCA to qualitatively explore antimicrobial prescribing behaviour, infection control practices, and local needs regarding these subjects.

### Results

The overall antimicrobial consumption at the CSCA between 2013 and 2017 was approximated to amount 4.44 DDDA per year. The majority of antimicrobial drugs used at this clinic were classified as second-line drugs (54.0%). A total of 213 bacterial isolates obtained from 154 different animal patients presented at the CSCA between 2013 and 2017 were labelled as multidrug-resistant. The survey was completed by 67 staff members and 12 veterinarians participated in the interview study. Several needs were identified from the survey and interview responses resulting in a set of 8 recommendations regarding the development of an antimicrobial stewardship program at the CSCA.

### Conclusion

The local antimicrobial prescribing patterns, the occurrence of multidrug-resistant bacteria, and the identified local needs for support and feedback on the prescription of antimicrobial drugs and dealing with patients carrying multidrug-resistant bacteria, emphasize the importance of developing an antimicrobial stewardship program at the CSCA.

1. Guardabassi L, Prescott JF. Antimicrobial stewardship in small animal veterinary practice: from theory to practice. *Vet Clin Small Anim* 2015;45:361-76
2. Netherlands Veterinary Medicines Institute (SDa). Usage of antimicrobial drugs in companion animals; Results of a survey of veterinary practices during 2012-2014. Utrecht, 2016. <https://cdn.i-pulse.nl/autoriteitdiergeneesmiddelen/userfiles/Publicaties/def-sda-rapport-antibioticumgebruik-bij-gezelschapsdieren.pdf>