“Guiding prudent use of antimicrobials in companion animal practice to protect animal and human health”
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Conflicts of interest:

Nothing to declare
**OUTLINE**

- Short introduction
- Goal ASAP-project
- **Systemic antimicrobial use in 44 Dutch companion animal clinics:**
  - Baseline data (2012-2015)
  - “Interventions”
  - After start of ASAP/Results
- Questions
INTRODUCTION

• 2.6 million cats, 1.5 million dogs and 1.2 million rabbits in the Netherlands
• About half of the cats and dogs, share the bed with their owner
• Pets might carry (resistant) bacteria

• Global increase of AMR
• Responsible use of antimicrobials is needed, also in companion animals!
ASAP-PROJECT

- Goal: to develop and implement an ‘antimicrobial stewardship programme’ in companion animal practices:
  - To optimise AMU in companion animal clinics
  - To protect animal and human health

- 3 phases:
  - Development
  - Implementation and evaluation
  - Prerequisites for large scale implementation
BASELINE DATA

• Describe systemic AMU in 44 companion animal clinics, prior to start of an ASP
  – Using DDDAs;

• Retrospective survey
  – Antimicrobial prescription data (July 2012-June 2015)
  – Data on clinic population
## BASELINE DATA

<table>
<thead>
<tr>
<th>Classification* of antimicrobials</th>
<th>2012/2013</th>
<th>2013/2014</th>
<th>2014/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>First choice</td>
<td>0.62 (33.8%)</td>
<td>0.67 (40.3%)</td>
<td>0.70 (44.6%)</td>
</tr>
<tr>
<td>Second choice</td>
<td>0.88 (48.5%)</td>
<td>0.81 (48.9%)</td>
<td>0.74 (47.2%)</td>
</tr>
<tr>
<td>Third choice</td>
<td>0.32 (17.7%)</td>
<td>0.18 (10.8%)</td>
<td>0.13 (8.1%)</td>
</tr>
<tr>
<td>Total DDDA per year (SD)</td>
<td>1.82 (1.0)</td>
<td>1.65 (0.98)</td>
<td>1.56 (1.0)</td>
</tr>
</tbody>
</table>

* Based upon Dutch classification of veterinary AMU (www.wvab.nl)
“INTERVENTIONS”

Multi-faceted:
• 2 Education evenings
• Exercise to write down own AMU policies on a poster
• Benchmarking AMU-data
• Information leaflet for owners
• ASAP-commitment form
• Clinic specified feedback visit

• Evaluation forms (100 per clinic)
• Participation
RESULTS (NUTSHELL)

• Meta-analysis
  – Using trend extrapolation of autoregressive clinic specific models
  – Log transformed AMU data

Effect of the ASAP-project (on top of the already ongoing trend!)
• Total AMU: further significant decrease, GM decrease of 15%
• 1\textsuperscript{st} choice AMU: not different
• 2\textsuperscript{nd} choice AMU: significant decrease, GM decrease of 25%
• 3\textsuperscript{rd} choice AMU: decreasing trend
RESULTS (NUTSHELL)

AMU before and after implementation ASP

- Total AMU
- 1st choice
- 2nd choice
- 3rd choice

before implementation

after implementation

AMU before and after implementation ASP

DDDA/year

0

1

2

0.2

0.4

0.6

0.8

1

1.2

1.4

1.6

1.8

2
RESULTS/EVALUATION

- Participants appreciated participation
- **More aware of (own) AMU!!**
- Practices could all mention one and mostly more specific changes in AMU

- Proof of principle:
  - Clinics willing to participate!
CONCLUSIONS

• Measure developed to quantify AMU using DDDAs
• Development of multi-faceted Stewardship Programme
• AMU was already decreasing and changing before implementation, but the Stewardship Programme enhanced ongoing developments!

• Future: to enroll 150 companion animal veterinarians in a ‘condensed’ version of the ASAP-project with the most successful parts of the project
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