

Estimation of antimicrobial use in companion animals in Denmark based on register data

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Background

In Denmark antimicrobials for veterinary use are reported to the Veterinary Statistics programme (VetStat) and published yearly in the Danish integrated Antimicrobial Resistance Monitoring and Research Program (DANMAP). Prescriptions on antimicrobials with no animal species specified are allocated to companion animals, if the administration form is commonly used for companion animals, but prescriptions on parenteral antimicrobials with no animal species specified are excluded

Aim and objective

To examine the prescribed parenteral antimicrobials in VetStat with no animal species specified and to evaluate the amount of prescribed parenteral antimicrobials in companion animals to give a more precise overview of the total consumption of parenteral antimicrobials in companion animals in Denmark



Materials & Methods

Vetstat data from 2018 covering antimicrobials prescribed for companion animals and prescription of antimicrobials with no animal species specified

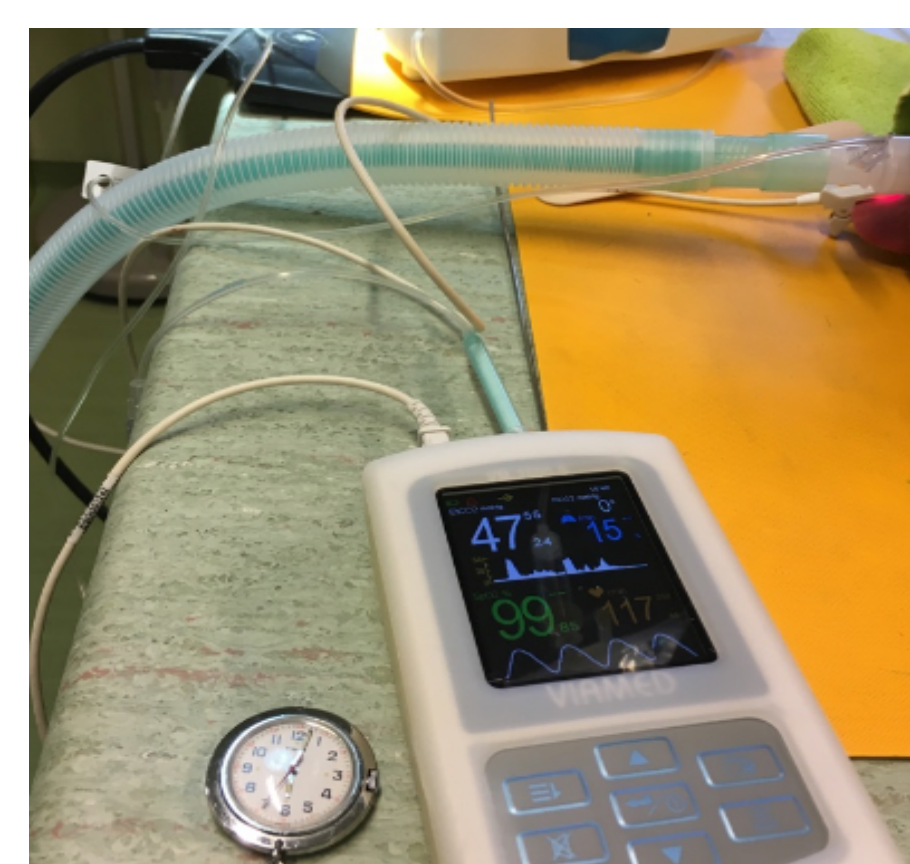


VetStat

Two datasets were generated:

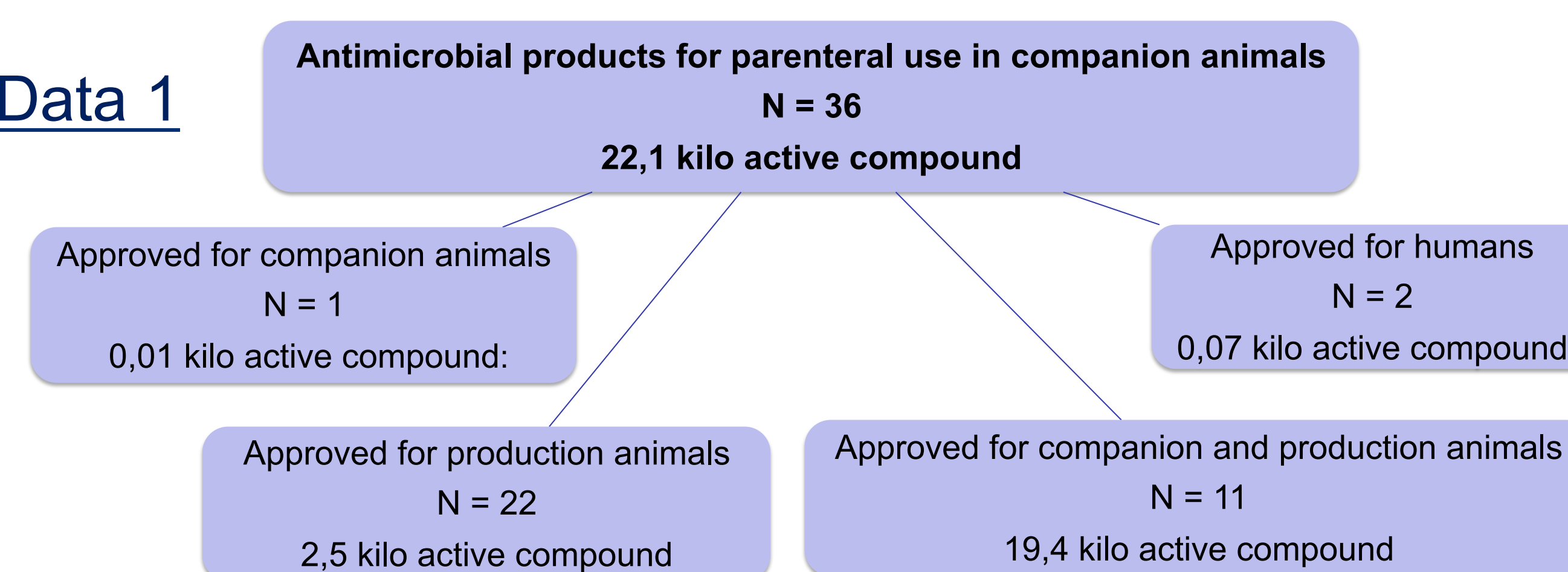
- Antimicrobial products prescribed for parenteral use in companion animals (Data 1)
- Antimicrobials products prescribed for parenteral use with no animal species specified (Data 2)

For each product the total amount of kilograms active compound was calculated. By use of official product descriptions it was determined which animal species each product is approved for in Denmark



Results

Data 1



Data 2

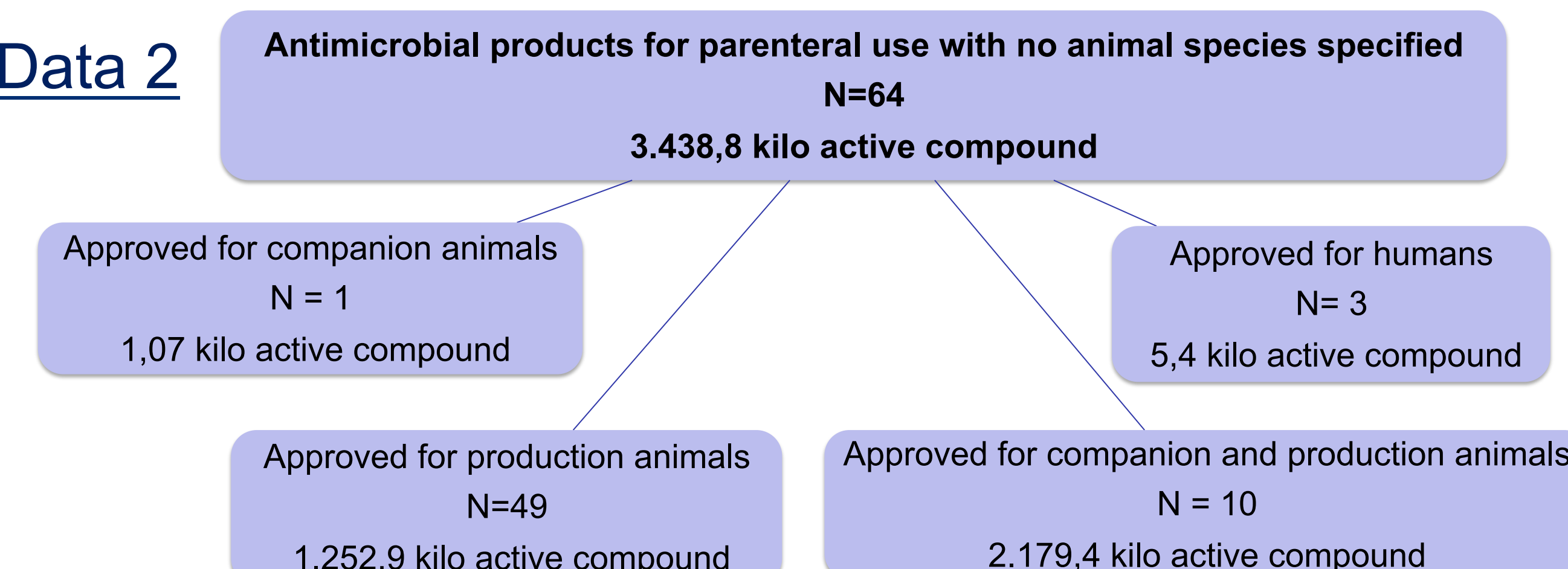


Table1 – Total antimicrobial use (kilo active compound) by animal species, Denmark. Modified from DANMAP 2018

Animal group	Total - 2018	Share of total consumption (%)	Population size (1000 heads)
Pigs	74658	74,6	32.500
Cattle	12865	12,9	1.108
Poultry	1326	1,3	122.910
Other production animals	7274	7,3	
- Fur animals	3689		21.019
- Aquaculture	3557		47.000 (kilo farmed fish)
Companion animals ^(a)	2418	2,4	
- Pets (dogs and cats)	1224		1.200
- Horses	1194		200
Total	100082	100	

(a) Tablets, eye- and eardrops, oral paste, injectables

Discussion and Conclusion: Products approved for companion and production animals in Data 2 are also prescribed for companion animals in Data 1. This can result in an underestimation of the total consumption of parenteral antibiotics for companion animals up to 2,180 kilograms active compound

Next step: Which animal species do the prescribing veterinarians mainly use the products registered for both companion and production animals for? How are the distribution patterns on antimicrobials and types of antimicrobials when compared to the type of veterinary practices and the degree of specialization?