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AACTING 2019, Berne

Reduced usage of High Priority Critically Important Antimicrobials (HPCIA) in pigs as a result of legal regulations and private initiatives in Switzerland

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Introduction

The SuisSano program was started in 2015 for monitoring and steering antimicrobial usage (AMU). Treatments with HPCIA are multiplicated with factor 4 within the program. Since 2016, usage of HPCIA in pigs also is legally regulated in Switzerland. After three years, the impact of regulations concerning usage of HPCIA was investigated.

Material & Methods

- 312 farms in 2015
- 598 farms in 2017 (20% of pig production in Switzerland
- Calculation of antimicrobial usage in number of DCDch per animal per year by antimicrobial classes for the years 2015 and 2017.

Results

Total AMU was constant in piglets and finishing pigs, it decreased in weaners and increased in sows between 2015 and 2017.

The relative usage of HPCIA in all age groups decreased from 25% in 2015 to 10% in 2017.

In sows the relative usage of HPCIA decreased from 17% in 2015 to 2% in 2017 (Fig. 1,2), in piglets from 20% to 5%, in weaners from 42% to 26% and in fattening pigs from 8% to 3%.

Conclusion

The usage of HPCIA within the SuisSano program was markedly reduced between 2015 and 2017.

Some bias cannot be excluded because of the voluntary character of the SuisSano program and thus participating farmers may be more motivated than others to reduce antimicrobial usage on their farms.

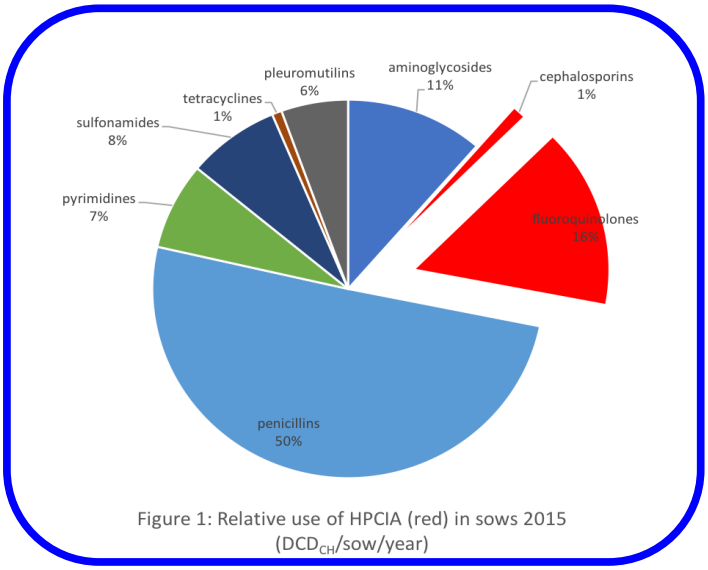

Figure 1: Relative use of HPCIA (red) in sows 2015 (DCD_{CH}/sow/year)

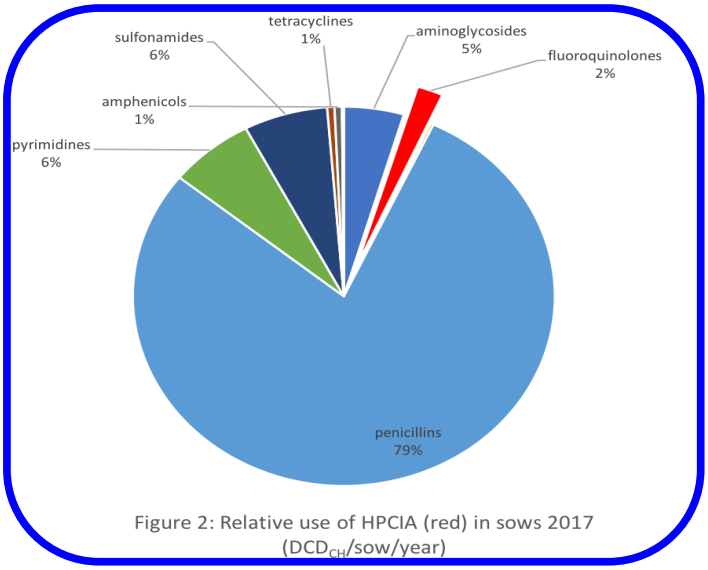

Figure 2: Relative use of HPCIA (red) in sows 2017 (DCD_{CH}/sow/year)

References

1. C. Schaller, K. Caspari, D. Kümmerlen
SUIS Sano – Measuring, evaluation and steering of antibiotic use of pig farms in Switzerland (in German)
KTP 23 (2015);171—5

2. Echtermann T, Müntener CR, Torgerson PR, Sidler X, Kümmerlen D. Etablierung von definierten Tagesdosierungen und definierten Gesamtbehandlungsdosierungen zur Messung des Antibiotikaverbrauchs in der Schweizer Schweineproduktion. Schweiz Arch Tierheilkd (2018) 160(10):597–605

3. EMA: Defined daily doses for animals (DDDvet) and defined course doses for animals (DCDvet); European Medicines Agency: EMA/224954/2016, Veterinary Medicines Division. 2016, www.ema.europa.eu.

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