Antimicrobial use data from Danish organic pig herds

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Publication date:
2018

Document license:
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Citation for published version (APA):
Antimicrobial use data from Danish organic pig herds

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Objectives

1) Compare prescription patterns for organic and conventional pig herds
2) Study associations between antimicrobial use and lesions found at slaughter in organic herds

Data from 2016

Herd-level antimicrobial prescription data extracted from VetStat
Information regarding herd type and number of animals extracted from CHR
Prevalence of lesions found at slaughter extracted from Meat inspection data

Results

The study was funded by the Pig Levy Fund
ISVEE 2018, Chiang Mai

Organics pig herds in 2016 (N=122)
Corresponds to 2 % of the total number of herds in Denmark

Organics pig herds with antimicrobial prescription in 2016 (N=57)

133 kg active compound prescribed for organic pig herd in 2016
Corresponds to 0.2 % of the total amount of active compound prescribed for pigs in DK

Table 1. Antimicrobial prescription data from Danish organic and conventional herds in 2016. Doses are calculated based on information from The Danish Veterinary and Food Administration. In 2016, 31,806,238 pigs were produced in Denmark of which approx. 99 % are conventional and 0.8 % are organic (source: VetStat and CHR)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Indication</th>
<th>Doses/produced animal/year</th>
<th>Distribution pr. age group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Conventional</td>
<td>Organic</td>
</tr>
<tr>
<td>Weaners (7-30 kilos)</td>
<td>Gastrointestinal</td>
<td>5.61</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>Respiratory</td>
<td>0.68</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>Arthropathy</td>
<td>0.72</td>
<td>0.03</td>
</tr>
<tr>
<td>Finishers (&gt;30 kilos)</td>
<td>Gastrointestinal</td>
<td>1.00</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>Respiratory</td>
<td>0.15</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Arthropathy</td>
<td>0.32</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Antimicrobial use and lesions found at slaughter for organic herds in 2016 (N=44)
Comparing two groups: Herds with antimicrobial prescriptions (N=33) and herds with no antimicrobial prescription (N=11)
- Herds with no antimicrobial prescription had higher prevalence of arthropathic and gastrointestinal lesions
- The prevalence of respiratory lesions were the same in the two groups
There were no associations between lesions found at slaughter and the indication for which prescriptions were issued

Conclusion

Differences in prescription patterns and antimicrobial use might reflect differences in herd conditions and restrictions on antimicrobial use for organic and conventional pig production in Denmark.

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