Antimicrobial reduction measures applied in Danish pig herds following the introduction of the “Yellow Card” antimicrobial scheme - DTU Orbit (25/12/2018)

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Following introduction of the antimicrobial restrictive "Yellow Card Scheme" in summer 2010, a rapid decrease in the Danish national pig antimicrobial consumption was observed. The aims of this study were to (i) investigate which measures had been implemented to reduce the antimicrobial consumption according to farmers and veterinarians and (ii) where possible, investigate if said measures were reflected in the herds’ antimicrobial purchase data. Based on national register data from VetStat and the Central Husbandry Register, the study population was selected among Danish pig herds which had decreased their annual antimicrobial consumption with ≥10% following the introduction of the Yellow Card Scheme comparing June 1, 2009–May 31, 2010 to June 1, 2010–May 31, 2011. Subsequently, questionnaire surveys of both farmers and veterinarians were carried out, resulting in responses from 179 farmers accounting for 202 herds (response ratio: 83%) and 58 veterinarians accounting for 140 herds. Prior to the introduction of the Yellow Card Scheme, 24% of the participating herds had an antimicrobial consumption for one or more age groups which exceeded the Yellow Card Scheme threshold values on antimicrobial consumption, while 50% of the herds had an antimicrobial consumption below the national average. The measures most frequently stated as having contributed to the antimicrobial reduction were increased use of vaccines (52% of farmers; 35% of the veterinarians), less use of group medication (44% of the farmers; 58% of the veterinarians) and staff education (22% of the farmers; 26% of the veterinarians). Reduced usage of antimicrobials for oral use accounted for 89% of the total reduction in antimicrobial use. Among the farmers, 13% also stated that change in choice of product had contributed to reducing their antimicrobial consumption. However, when analyzing purchase data, no general trend was seen towards a larger purchase of products with a higher registered dosage per kg animal compared to similar products. The findings of this study indicate that implementation of antimicrobial restrictive legislation at herd-level may lead to a variety of antimicrobial reducing initiatives in both herds with a high- and herds with a low previous level of antimicrobial consumption.

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