

TITLE

DYNAMICS OF DISEASE IN A DANISH HERD BELONGING TO THE ‘RAISED WITHOUT ANTIBIOTICS’ PROGRAM.

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CONTENT

The increased pressure to reduce antibiotic (AB) consumption inspired the farmer-owned meat producer Danish Crown to initiate a program called Raised Without Antibiotics (RWA). Today 38 Danish farms are included. In short, all pigs are RWA-ear tagged at birth and if a pig receives any AB treatment, this ear tag is removed. The aim of this cohort study was to identify how many, when and why pigs receive AB treatment in the farrowing and nursery unit of one RWA-herd.

In one farrowing batch all piglets (n=518) born within two days were ear tagged at birth with a unique id in one ear and an RWA ear tag in the other ear. We monitored the pigs weekly for 12 weeks. Every fifth piglet (n=103) (ear tag 5, 10, 15 a.s.o.) was clinically examined and every tenth piglet (ear tag 10, 20, 30 a.s.o.) was subjected to nasal and rectal swapping, which were analyzed in a high-throughput diagnostic system (Fluidigm) specific for 19 respiratory and enteric viral and bacterial pathogens.

Of 103 pigs, 75 and 64 pigs remained RWA at 4 and 12 weeks of age. The main reasons for a pig to lose RWA status were deaths (n=7), treatments (n=7) within the first week of life, treatments in the first week post weaning (n=5), and treatments in the last week of suckling (n=4).

The main clinical signs among the AM treated pigs were diarrhoea and mild respiratory signs.

Preliminary analyses of pathogen dynamics in this herd revealed a shift in prevalence over time for Influenza A Virus, E. coli F4 and F18 and Rotavirus A with the highest occurrence detected at weaning.

Other pathogens such as Porcine Cytomegalovirus, Str. Suis type 2 and Mycoplasma hyorhinis did not reveal any age related dynamics and were highly prevalent at several consecutive observations.