

Study comparing Aivlosin[®] WSG with Tylan[®] to Control *Lawsonia* in Nursery/Finishing Swine in Denmark

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Introduction

This study compared treatment with the novel water soluble macrolide Aivlosin[®] and water soluble Tylan[®] in a pig unit in Denmark with a history of *Lawsonia intracellularis* and respiratory problems in grower/finisher pigs. Pigs were positive for *Mycoplasma hyopneumoniae* and given a single vaccination at weaning.

Materials and Methods

The trial was conducted in a wean to finish unit based in Skanderborg, Denmark into which 700 weaned pigs entered every 2 weeks.

The trial was performed on two consecutive batches of 350 pigs. On arrival at the nursery, 350 pigs were allocated randomly to one of two treatment groups and individually weighed. Treatment of both test groups with their respective medication began when 10% of the pigs showed signs of scouring; both treatments started on the same day and were given in drinking water. Aivlosin[®] 625 mg/g Granules for Use in Drinking Water for Pigs (ECO Animal Health) was given at a dose rate of 5.0 mg tylvalosin/kg bodyweight daily for five consecutive days and Tylan[®] Soluble Powder (Elanco) was given at 8 mg tylosin/kg bodyweight daily for 5 consecutive days. Medicated water was made up fresh on a daily basis for both products.

Parameters measured for each group were mortality, weekly and overall average faecal scores (from one week after placement in the finishing area until 1 week prior to slaughter), bodyweights at each weighing point, average daily gain in finishing, feed conversion ratio (FCR) and lung scores on a subsample of 35 pigs per treatment and per batch (Goodwin method). Statistical analysis was performed in SAS version 9.4. Data normally distributed were analyzed using multivariate linear model. Mortality was analyzed using Kaplan-Meier plots and proportional

hazards models.

Results

Results are shown in the table below.

	Aivlosin [®]	Tylan [®]
Av. Faecal Score (p-value 0.51)	0.4	0.41
Pigs requiring additional treatment (%) (p-value 0.02)	8.6 ^a	13.9 ^b
Pigs requiring additional treatment for ileitis (%) (p-value 0.03)	6.6 ^a	11.0 ^b
Mortality (%) (p-value 0.05)	1.9 ^a	4.9 ^b
FCR	2.16	2.24
ADG (kgs/day) (p-value 0.19)	0.990	0.888
Pneumonic lungs at slaughter (%) (p-value <0.01)	19 ^a	39 ^b
Pneumonia Index (IPP) (p-value 0.07)	0.85	2.01

^oSuperscripts indicate statistically significant differences.

Conclusions and Discussion

In this study, pigs in the Aivlosin[®] group had significantly lower percentage of pigs needing additional treatments, lower mortality and lower percentage of pneumonic lungs than pigs in the Tylan[®] group. Pigs treated with Aivlosin[®] received 60% less antibiotic on a mg/kg basis than did the pigs treated with Tylan[®], excluding additional treatments.

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