

Treatment of *Mycoplasma gallisepticum* in Chickens with Aivlosin[®] soluble in comparison to Tylan[™]* soluble

Study Design:

In a 2004 European GCP study, *Mycoplasma gallisepticum* (R strain) was used to challenge susceptible, 21 days old (Ross 308) chickens.

The MIC's for this strain were 0.03ug/ml and 0.06ug/ml for Aivlosin[®] and Tylosin respectively. These MIC's indicated *in vitro* sensitivity to Aivlosin[®] (as expected in the lack of any reported resistance) but also to tylosin (which may not always be the case in the field).

Clinical signs, mainly respiratory rales with some difficulties with breathing, were evident in the chickens 5 days later. Treatment with either Aivlosin[®] water soluble or Tylan[™] soluble started at 7 days post challenge and lasted for 3 days.

The chickens were assessed for clinical signs, growth rate, feed conversion ratio (FCR), lesions at post mortem (at 42 days of age) and re-isolation rates for *M.gallisepticum*, and compared to untreated controls. Growth rate and FCR values were from day of treatment until the end of the trial.

Results:

The effects due to Aivlosin[®] treatment were dramatic compared to the untreated chickens (Table 1), demonstrating Aivlosin[®] at 27mg/kg bodyweight was highly successful in treating this severe disease challenge.

The results (Table 1) also showed that Aivlosin[®] at 27mg/kg (about 125mg/L), significantly improved clinical signs, airsac/peritonitis scores, had better weight gain and FCR, and had less *M.gallisepticum* re-isolations compared to Tylan[™] at 500mg/L drinking water (about 105mg/kg bodyweight).

Table 1 : Results

	FCR	Average Wt. gain /chick(kg)	Clinical score	Airsac/ Peritonitis score	Re-isolations respiratory	Re-isolations internal	Dosage (mg/kg)
Aivlosin [®]	1.93	0.76	65	18	11	4	27
Tylan [™]	2.01	0.71	101	52	13	6	105*
Untreated	2.39	0.54	205	139	38	27	0

* based on actual water consumption, concentration of 500mg/L water and bodyweight

Conclusion:

Aivlosin[®], 27mg/kg (about 125mg/L), was shown to be a highly effective treatment against the effects of a severe *Mycoplasma gallisepticum* challenge in chickens.

Aivlosin[®] also showed clear clinical and production advantages vs Tylan[™] soluble at 500mg/L (about 105mg/kg) even though the strain used in trial was sensitive to tylosin.

*Tylan is a registered trademark of Elanco