



HHM-042

ASSESSMENT OF MATERNALLY DERIVED ANTIBODY LEVELS IN COLOSTRUM FROM SOWS VACCINATED WITH ONE OF TWO DIFFERENT *E. COLI* VACCINES

X. Solà¹, F. Tobin¹, R. Neto², M. Collell³.

¹ Holmefield Farm Services, Murton, York, United Kingdom; ² MSD AH - UK, Milton Keynes, United Kingdom; ³ MSD AH, New Jersey, United Kingdom.

Introduction

Escherichia coli (EC) is a primary pathogen involved in neonatal diarrhea (ND). ND occurs when the protection granted by maternally derived antibodies (MDA) is overwhelmed by a high bacterial challenge of the piglets. The objective of this study was to assess the levels of EC antibodies (ab) induced by two commercially available vaccines in sows.

Material & Methods

In a 500 sows indoor farrow to finish farm, 31 maiden gilts not previously vaccinated against EC were included in this study and randomly allocated to either group A (14 gilts), vaccinated with Porcilis® ColiClos (2ml, intramuscular (IM)) or group B (17 gilts), vaccinated with a competitor EC vaccine (5ml, IM). Vaccinations were done as recommended on the product datasheets. Body condition score (BCS) was assessed and recorded to ensure no difference was due to BCS.

Colostrum samples were collected and tested for quantification of ab by ELISA with purified antigens K88ab, K88ac, K99, 987P and LT (Boxmeer Servicelabs, MSD AH). Due to management practices it was not possible to collect mortality or clinical disease scores.

Results

The Mean Log₂ antibody titers in Group A colostrum were significantly higher for K99 and LT than in group B, (A:10.29, B:8.78, p=0.002 and A:9.19, B:7.86, p=0.04). The sample size was too small to establish significant differences between groups A and B for 987P (A:10.5, B:9.31, p=0.06) or for K88ab (A:10.99, B:10.46) and K88ac (A:10.79, B:10.63).

Discussion & Conclusions

Under the study conditions, Porcilis® ColiClos induced significantly higher ab titers than the competitor vaccine against F5 fimbrial adhesins (K99) and LT toxin. Prevention of ND caused by EC relies on good hygiene, management practices and sow vaccination. Higher antibody titers in the colostrum are desirable and may result in better protection of the piglets.

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