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## ANTIMICROBIAL SUSCEPTIBILITY OF ESCHERICHIA COLI ISOLATED FROM FARMED SOWS WITH POSTPARTUM DYS GALACTIA SYNDROME

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Postpartum dysgalactia syndrome (PDS) is an economically important disease in pig production worldwide affecting both sows and piglets. As a multifactorial disease, the infectious component is represented by coliform bacteria where *Escherichia (E.) coli* plays a significant role. *E.coli* is a useful indicator bacterium in all animal species for antimicrobial use and identification of antimicrobial resistance. Hence, the aim of this study was to determine the antimicrobial susceptibility of *E. coli* isolated from sows clinically affected with PDS. The survey was conducted on 35 *E. coli* isolates from 3 pig farms. The antimicrobial susceptibility testing was performed by the Kirby-Bayer disk diffusion method according the CLSI standards with enrofloxacin, tetracycline, streptomycin, erythromycin, gentamycin, neomycin, sulfametoxasole-trimethoprim and cefotaxime antibiotic discs. The highest susceptibility rates were determined for neomycin (91.4%, 32/35), gentamycin (80%, 28/35), erythromycin (71.4%, 25/35) and cefotaxime (60%, 21/35). The highest resistance was determined for streptomycin with (91.4%, 3/35) and tetracycline with (91.4%, 3/35), followed by enrofloxacin with (68.5%, 24/35) and sulfametoxasole-trimethoprim with (45.7%, 16/35). Only 2 isolates showed susceptibility to all tested antibiotics. Twelve isolates were resistant to 3 antibiotics and 1 to all 7 selected antimicrobials. *Escherichia coli* implicated in the PDS showed high resistance to the commonly used antibiotics in the selected farms. The extensive use of antimicrobial agents for therapeutic and prophylactic purposes in the pig industry is a great risk for emergence of resistant bacteria. Therefore, restricted use of antimicrobials and continuous monitoring of the antimicrobial susceptibility/resistance rates should be implemented.

**Key words:** *E. coli*, antibiotics, antimicrobial resistance