**CHRISLAND UNIVERSITY**

**DISTRIBUTION OF GRAM NEGATIVE COLISTIN RESISTANT BACTERIA IN ABEOKUTA POULTRY FARMS.**

**(OWOH IFEANYI FESTUS)**

**ABSTRACT**

A surge in the spread of antibiotic resistance has become alarming and due to this, neglected antibiotic solutions are being re-introduced to fight against pathogenic microorganisms. Colistin is a drug of last resort treatment against multidrug drug resistant and extensively drug resistant Gram-negative bacteria. There is increased concern about colistin resistance worldwide. However, few studies have investigated the occurrence in Nigeria. This study was designed to estimate the distribution of colistin resistance among Gram negative bacteria from different poultry farms in Abeokuta. Faecal, feeds and drinking water samples were gotten from three different poultry farms in Abeokuta, Ogun State. The bacteria were isolated and identified phenotypically following standard microbiological methods. Disk diffusion method was used to determine the antibiotic susceptibility pattern of the isolates and the result interpreted using the CLSI guidelines. The Gram-negative bacteria isolates are *Escherichia coli* 1(1.3%), *Proteus mirabilis* 27 (34.6%), *Proteus vulgaris* 10 (12.8%), *Enterobacter agglomerans* 4 (5.1%), *Klebsiella oxytoca* 11(14.1%), *Trabulsiella guamensis* 1 (1.3%), *Morganella morganii* 2 (2.6%), *Enterobacter cancerogenus* 3 (3.8%), *Providencia rettgeri* 7 (8.9%), *Salmonella spp* 3 (3.8%), *Xernorhabdus luminescens* 2 (2.6%), *Citrobacter amalonaticus* 1 (1.3%), *Leminorella grimontii* 1 (1.3%), and *Citrobacter diversus* 1 (1.3%). The distribution of colistin resistance bacteria from different farms revealed that, 80% of isolates are resistance to colistin from Farm 1, 87% from Farm 2 and 100% from Farm 3. The high resistance to colistin among Gram negative bacteria in this study is worrisome. There is need for urgent intervention to curb the spread.