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| **CHRISLAND UNIVERSITY**  |  |
| **ANTIBIOTIC SUSCEPTIBILITY AND RESISTANCE OF PATHOGENIC CLINICAL ISOLATES** |  |
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| **ABSTRACT** |  |

Diseases and infections are known to be naturally transmitted from one individual to another. These diseases are caused by pathogenic bacteria. Health care facilities, patients and hospitals are known to be potential reservoirs of many of these entero-pathogens. This study is designed to identify and evaluate the antibiotic susceptibility pattern of enteric pathogens from patients in hospitals. A total of 70 clinical isolates were obtained from Federal Medical Centre, Abeokuta, Ogun State. Standard microbiological methods were used to identify the isolates. Antimicrobial susceptibility testing was done using the disk diffusion method according to CLSI guidelines. A total of 5 different organisms were identified. In terms of percentage occurrences, *Klebsiella pneumoniae* has the highest frequency of 42.9%, followed by *Escherichia coli* with a frequency of 32.8%, *Pseudomonas aeruginosa* (12.9%), and *Enterobacter aerogenes* and *Klebsiella oxytoca* (5.7% each). Results obtained from the antibiotic susceptibility pattern of the 70 clinical isolates according to CLSI guidelines revealed that the resistant rate of all the isolates to Ceftazidime (CAZ), Cefuroxime (CRX), Gentamicin (GEN), Cefixime (CXM), Ofloxacin (OFL), Augmentin (AUG), Nitrofurantoin (NIT) and Ciprofloxacin (CPR) were 90%, 98%, 83% 97%, 70%, 100%, 74% and 86% respectively. This study revealed that the clinical isolateswere multidrug-resistant and potentially harmful to humans. It is important to educate people on the importance of personal hygiene in order to prevent diseases. They also need insights on the avoidance of the abuse and self-medication of antibiotics.