

Antibiotic Sensitivity Pattern of Pus Isolates at Base Hospital, Gampola

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Introduction: Antibiotic Sensitivity Pattern should be determined prior to prescribing medicines in order to treat the suppurative infections. Multiple studies have been carried out to determine the prevalence of microbes in pus samples and its ABST pattern. Considerable variations in bacterial profiles found in pus samples emphasize the importance of determining the prevalence of microbes and the ABST pattern. Therefore, the current study aimed to assess the prevalence of pus culture isolates and its ABST pattern in Base hospital, Gampola. This cross-sectional study was carried out between March to June 2023. The ethical clearance was obtained from ethical review committee, National Hospital Kandy. All the pus samples were processed on arrival to the microbiology laboratory without delay. The laboratory manual in microbiology published by the Sri Lanka College of Microbiologist (SLMC 2012) was used as the reference material for microbiological procedures of pus samples. In the present study among 210 pus culture samples, microorganisms such as Coliforms, *Staphylococcus aureus*, *Pseudomonas* spp, Coagulase Negative Staphylococci and Gram-Negative Coccobacilli were detected. Coliform was the most common isolate. Coliform showed 100% sensitivity to Meropenem, 95.89% and 91.78% to Amikacin and Gentamicin respectively. 43.84% of coliforms isolated as ESBL. *Staphylococcus aureus* exhibited 100% sensitivity to Vancomycin, out of 43 samples and 41.86% were MRSA isolates. *Pseudomonas* spp showed 100% sensitivity to Ceftazidime followed by Gentamicin, Piperacillin Tazo-bactam accounting for 82.76% respectively. In this investigation the most prevalent antibiotic sensitivity pattern for coliform was Meropenem, Gentamicin and Amikacin. According to this current study, a number of antibiotics are effective against organisms without having to use of Carbapenems. *Pseudomonas* spp showed sensitivity to Ceftazidime. Cefaperazone-Sulbactams and Piperacillin-Tazobactam were alternative drugs used in place of Carbapenems (Meropenem).

Keywords: ABST pattern, Pus isolates, Study, Base hospital

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