

## WEEKLY SURVEILLANCE OF ANTIMICROBIAL RESISTANCE OF COLONISING FLORA FROM PATIENTS IN ICU - GENERAL HOSPITAL KANDY

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Nosocomial infections are a common cause of morbidity and mortality in Intensive care units (ICU). Morbidity and mortality increase when infections are caused by multi-resistant bacteria. There is limited and often anecdotal information on the role of multi-resistant bacteria in ICU related infections. A previous attempt to establish a continuous surveillance programme was found to be too labour intensive. The current study attempts to determine the cost effectiveness of a weekly surveillance programme .

Weekly surveillance was carried out on all patients in the ICU from March to May 2001. Endotracheal aspirate, urine and blood were taken for culture from intubated patients . Ninety six Gram negative bacilli (awaiting identification) were isolated from 27 patients. Antimicrobial sensitivity of the isolates were tested using a standardised sensitivity testing method (BSAC) . Most isolates were resistant to cefuroxime (98.9%). A high proportion of isolates were resistant to commonly used antibiotics such as cefotaxime (87.5%), ampicillin (80.2%) and gentamicin (62.5%). Approximately half the isolates were resistant to co-amoxiclav (48.9%) and ciprofloxacin (51%). Only amikacin (9.4%), meropenem (9.4%) and imipenem (15.6%) retained useful antimicrobial action. It is worrying to see high levels of resistance to rarely used antibiotics such as aztreonam (48.9%) netilmicin (79.2%) and ceftazidime (61.5%)

A pilot study to determine the necessity and viability of carrying out surveillance for antimicrobial resistance showed that there is a high incidence of resistance in Gram negative bacilli isolated from patients in a intensive care unit. Although only 27 patients were screened over a period of 7 weeks, the findings suggest that surveillance is essential to monitor the extent and pattern of antimicrobial resistance. However, even weekly surveillance is very labour intensive and time and cost requirements will have to be considered before surveillance is established as routine practice in Sri Lankan hospitals.