Sensitivity and resistance pattern of Antimicrobials in sepsis

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Sepsis is one of the most commonly seen infections in ICU setting. A prospective study was conducted for the duration of 6 months in which 200 patients were enrolled according to our study inclusion criteria with sepsis from ICU, out of which male predominance was more. The selection criterion was based on the culture test and/or SIRS criteria. The most commonly found source of infection was urine, followed by blood stream infections (BSI). The pathogens isolated from various specimens like blood, urine, pus, sputum were E. coli, S. aureus, P. aureginosa, and Acinetobacter. Gram negative bacteria were more prevalent followed by Gram positive bacteria. Commonly prescribed combination antimicrobials in ICU were piperacillin-tazobactum, ampicillin-sulbactum, co-trimoxazole. Ceftriaxone was found to be the most resistant drug, confirmed after culture sensitivity test. Gram positive organisms like t. coagulase negative streptococci are highly sensitive to linezolid than other antibiotics like vancomycin, piperacilin+tazobactum, ceftriaxone and meropenem.

De-escalation was carried out very rarely, and it was performed depending upon the patient renal impairment status. De-escalation was carried out with piperacillin-tazobactum only. Mortality was not changed by de-escalation. The high use of antibiotics with high levels of resistance such as ceftriaxone, piperacillin-tazobactum, gentamycin, ciprofloxacin and meropenem requires special attention to control the use of antimicrobials.

Biography

P V S Shobhita is working as an intern in Doctor of Pharmacy program, Poona College of Pharmacy at Bharati Vidyapeeth’s Hospital, Pune.