

Original Research Article

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## Incidence, Bacterial Profile and Antimicrobial Susceptibility Pattern of Ventilator Associated Pneumonia in Andhra Pradesh, India

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### ABSTRACT

#### Keywords

Bacterial profile, Antimicrobial susceptibility pattern, Ventilator associated pneumonia

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Healthcare associated pneumonia (HAP) that includes ventilator-associated pneumonia (VAP) is the second most common Hospital acquired infection (HAI) only after urinary tract infection accounting for about 15-20% of HAIs. 39% of HAP is VAP. Mortality rate among patients with VAP ranges from 24-50%. Therefore, this study was undertaken with an aim to determine incidence, bacterial profile and antimicrobial susceptibility pattern of VAP in a tertiary care hospital at Andhra Pradesh, India. The patients were suspected of VAP, when Clinical Pulmonary Infection Score (CPIS) was six or greater. Endotracheal aspirate (ETA) from such patients was sent to culture and sensitivity test. Out of 85 patients, 23 patients developed VAP, based on CPIS and culture and sensitivity test. Incidence rate of VAP was found to be 20 per 1000 ventilator days. 22 out of 23 were bacterial pathogens and one was *Candida albicans*. Predominant bacteria was *Acinetobacter* spp (52%) followed by *Pseudomonas aeruginosa* (26%) and members of family Enterobacteriaceae (17%). Gentamicin was found as most effective antimicrobial agent to all gram negative bacteria obtained. Gram negative bacteria are common pathogens of VAP throughout the world. However, antimicrobial susceptibility testing is necessary for determination of antimicrobial therapy as it shows regional variation.