

all staff including housekeeping, and improved communication and feedback between ICD, MSICU and Housekeeping is very successful to reduce MDRO colonization.

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Burkholderia cepacia nosocomial infections in a tertiary hospital in western India—a six month surveillance



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Background: *Burkholderia cepacia* is a ubiquitous, gram negative nosocomial pathogen with a potential to cause fatal infections in the intensive care units. The data on the types of nosocomial infections and drug susceptibility patterns of *B. cepacia* is scarce in India. The main aim of this study was to evaluate the epidemiology of *B. cepacia* infections in our hospital.

Methods & Materials: This study was conducted in a tertiary care institute in western India. A retrospective analysis of the incidence, clinical characteristics, antimicrobial susceptibility patterns and clinical outcomes of nosocomial *B. cepacia* infections was conducted.

Results: A total of 21 cases of nosocomial *B. cepacia* infections were included in the study over a period of six months. Out of total 21 patients, twelve(12) were males and nine(9) females. *B. cepacia* was identified from 28.2% of nosocomial isolates over six month period. The most common nosocomial infection in our study was blood stream infection (61.9%), followed by surgical site infections(14.3%), urinary tract infections (9.5%) and pneumonia(4.7%). The unique feature of drug susceptibility was the high level of resistance to carbapenems, piperacillin-tazobactam and co-trimoxazole, which was reported as 100%, 91% and 76%, respectively in our study. Majority of the isolates were susceptible to cefepime(100%), a 4th generation cephalosporin, which emerged as the antimicrobial of choice for *B. cepacia* infections in our study.

Conclusion: *Burkholderia cepacia* is an emerging nosocomial pathogen in intensive care settings with a potential to produce fatal infections. Multidrug resistance strains with high MICs to carbapenems and cotrimoxazole, may increase mortality in view of limited therapeutic options. Cefepime, a 4th generation cephalosporin, may be a viable therapeutic option in presence of multidrug resistance.

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Streptococcus salivarius meningitis post spinal procedure: Diagnosis by 16S and a call to better aseptic practices



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Background: We report two cases of *Streptococcus salivarius* meningitis diagnosed by 16S PCR. *Streptococcus salivarius* is part of the normal flora of the oral cavity. It is an uncommon cause of meningitis. Most cases are iatrogenic, related to neurosurgical procedures or CSF leaks. The transmission from physician to patient has been proven in the literature, most likely in droplet form during spinal procedures. The recent increase in the number of cases prompted the Healthcare Infection Control Practices Advisory Committee to recommend wearing surgical masks for all spinal procedures. The CDC followed suite recommending the use of face masks at all times when performing spinal injections.

Methods & Materials: A 17 year old female received a combined spinal-epidural anaesthetic during labour. There was an initial unsuccessful attempt via the L3/L4 space and a subsequent successful pass at the L2/L3 space. Three hours post-delivery, the catheter was removed. Within 24 hours, the patient showed signs of meningitis. Subsequent lumbar puncture revealed a white cell count of $>7000 \times 10^6$ cells/L. As the patient had been started on empiric antibiotics, the culture yielded no growth.

A 51 year old female presented with symptoms of meningitis within 24 hours after a lumbar facet joint injection for chronic lower back pain in a musculoskeletal clinic. A lumbar puncture was performed on presentation and indicated a white cell count $>11,000 \times 10^6$ cells/L but did not culture any organisms.

Results: Meningitis was rapid in onset after spinal procedures with a high CSF white cell count and polymorphonuclear predominance. 16S results confirmed the presence of *S. salivarius*. The 16S result guided therapy and both patients made good recoveries. While no direct source of the infection was sought, infection control procedures were highlighted.

Conclusion: *Streptococcus salivarius* is an uncommon cause of meningitis but should be suspected following spinal procedures. The source may be endogenous or exogenous from the hands or face of the health care worker administering the spinal procedure. Ongoing education of the medical profession is required regarding the importance of wearing a surgical mask for spinal procedures.

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