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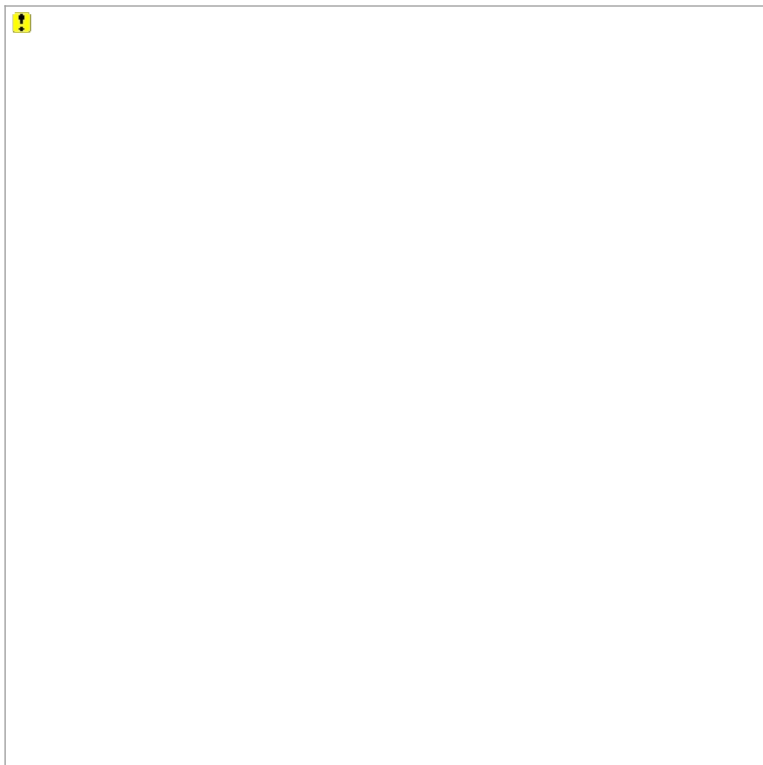
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Antimicrobials: Resistance surveillance

Changes over the years in ESBL(+)-producing *E. coli*, *Klebsiella* and carbapenem-resistant Gram-negatives, and *Candida* species obtained from blood cultures at haematology-oncology-ICU units

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**Objectives:** Early identification multi-drug resistant bacteremia and candidemia and appropriate management of antimicrobial therapy is an important prognostic factor for Hematology-Oncology and ICU patients. In this study, we evaluated ESBL (+) *E. coli* and *K. pneumoniae*, carbapenem resistant *Klebsiella*, *Pseudomonas*, *Acinetobacter* and *Candida* species which were the causes of bacteremia and candidemi of the patients followed in Hematology-Oncology Departments and ICU.

**Material and method:** In our faculty, Patients of Hematology-Oncology Unit and Internal ICU are been consulted by Department of Infectious Disease everyday. In this study, we analyzed ESBL (+) producing *E. coli*, *K. pneumoniae*, carbapenem resistant *Klebsiella*, *Pseudomonas* and *Acinetobacter spp.*, and all *Candida* species obtained from the blood cultures of the patients. The microorganism was isolated in Infectious Diseases and Clinical Microbiology Laboratory between January 2010 and January 2013.

**Results:** In our hospital, Gram-negative bacteremia was developed in 488 patients in the last 3 years. Over the years, the rate of *E. coli* decreased, *Klebsiella* and *Acinetobacter* increased, and the rate of *Pseudomonas* remained unchanged. Besides the decrease in ESBL producing *E. coli*, an increase was observed in ESBL producing *Klebsiella spp.* The rates of carbapenem resistant *Acinetobacter* and *Klebsiella spp.* increased, and the rates of *Pseudomonas* strains were similar and high throughout the years.

101 patients with candidemia have been identified. Over the years, rates of *C. albicans* strains decreased, non-albicans isolates such as *C. parapsilosis* and *C. tropicalis* increased. Isolated pathogens, ESBL and carbapenemase rates and annual change of *Candida spp.* are shown in Table 1.

Multidrug resistant pathogens are increasing in the worldwide. The surveillance of infections due to multi-drug resistant microorganisms in Hematology-Oncology and ICU patients are important in terms of appropriate antimicrobial therapy and patient isolation. Maximum efforts should be made to reduce hospital infections. By considering the isolated candida species from units, early initiation of appropriate antifungal therapy is life-saving.