



Antimicrobial susceptibility of bacteria recovered from sputum in Pars hospital at Tehran, Iran

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Introduction and objectives: The isolation of bacteria from sputum of patients has medical importance and requires serious attention. The aim of this study was determination of antimicrobial susceptibility of bacterial isolates recovered from sputum of patients in microbiology laboratory of Pars hospital, Tehran, Iran, to identify the most appropriate drug in empiric therapy of patients with related infection.

Material and methods: Antimicrobial susceptibility of bacteria isolated from sputum of patients at the microbiology laboratory of Pars General Hospital in Tehran, Iran, from April to June 2013, was determined by disk diffusion method according the Clinical and Laboratory Standard Institute (CLSI) guideline using disks purchased from Rosco Company (Denmark) and the data was analyzed by SPSS software.

Results: From the 134 bacterial positive sputum, 57.5% were recovered from outpatients and 42.5% from inpatients; 60.2% from male and 39.8% from female; and most of them (67.2%) from patients in the age group of ≥ 65 years old. The most prevalent isolated bacteria from sputum were *Acinetobacter* spp. (29.1%), *S. aureus* (20.1%), *P. aeruginosa* (16.4%) and *Klebsiella* spp. (15.7%). Sensitivity to beta-lactam antimicrobial agents such as ampicillin, coamoxiclav and cefepime was shown in minor isolates, but most of isolates were sensitive to colistin, vancomycin, linezolid and fusidic acid. Sensitivity to each antimicrobial agent was variable among isolated bacteria.

Conclusion: The study of distribution of bacteria isolated from sputum of patients and antimicrobial susceptibility of them can help in empirical therapy of patients.