FREQUENCY AND ANTIMICROBIAL SUSCEPTIBILITY OF PATHOGENS AT TERTIARY PUBLIC HOSPITAL, SAO PAULO, BRAZIL

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Abstract. Nosocomial infections are one of the leading causes of morbidity and mortality. This study determined both prevalence and antimicrobial susceptibility of microorganisms identified during January to December 2012 at a tertiary public hospital, Sao Paulo, Brazil. Data, hospital length of stay, age, identity of microorganisms, and antimicrobial susceptibilities were obtained from patients’ records. A total of 724 positive strains were obtained from different body sites. Gram-negative microorganisms are significantly more prevalent than gram-positive microorganisms \((p = 0.001)\). In all clinics analyzed, coagulase-negative Staphylococcus (CoNS) was the most prevalent microorganism isolated (21.6%), followed by Pseudomonas aeruginosa (12.4%). Extended spectrum \(\beta\)-lactamase Klebsiella pneumoniae was present in 62.7% of the strains and 18.9% were resistant to carbapenem/meropenem. Acinetobacter baumannii showed multidrug resistance. The majority of Escherichia coli isolates were obtained from positive urinary tract cultures (63.4%), with 27.5% resistant against cefepime. Elderly patients, long periods of hospital stay and continuous usage of a single antibiotic should be kept in mind of possible causes for infection of A. baumannii, ESBL and carbapenem-resistant K. pneumoniae and the worrisome E. coli with increased resistance to cefepime. The data allowed us to implement monitoring programs as part of the prevention strategy against pathogens prevalence and antibiotic resistance burden at Ipiranga Hospital, Sao Paulo, Brazil.

Keywords: antimicrobial susceptibility, pathogens frequency, tertiary public hospital, Brazil