Title: The prevalence and antibacterial susceptibility of Staphylococcus aureus in various wards of Namazi hospital, Shiraz, Iran, 2008-2009

Authors: Kandehkar Ghahraman MR1*, Yousefi Avarvand A1, Hashemizadeh Z2, Taghizadeh A2, Navvabi Sh2, Motamedifar M2,3

Abstract: Background & objectives: Staphylococci are routinely isolated from human. Besides their role as commensals on mucosal surfaces and the skin, staphylococci are often involved in a wide variety of diseases either hospital acquired or community acquired. Staphylococcal infections are frequently treated with antibiotics and, consequently, antibiotic resistance and/or acquired resistance have developed. Antibiotic resistance pattern of Staphylococcus aureus can help physicians in use of appropriate antibiotics in treatment in patients. The aim of this study was to detect the Staphylococcus aureus prevalence and the antibiotic susceptibility of the isolates from different specimens of the patients in different wards of Namazi hospital, Shiraz, Iran.

Methods: In this retrospective study, all cases of Staphylococcus aureus infections in Namazi hospital during October 2008 to October 2007 were studied. From October 2008 to October 2007 all S. aureus, positive samples from various invasive and non invasive infections of hospitalized patients were considered to detect the antibiotic sensitivities of those isolated S. aureus by using disk diffusion methods. The specimens included wound, sputum and nose culture.

Results: Out of 178 different positive samples for S. aureus, which were isolated from wound (28.09%) sputum (23.03%), nose culture (14.04%), dominantly were from patients in adult internal ward. Their resistance rates to vancomycin, ceftizoxime and cloxacillin were 0%, and 2.8% respectively. Most isolates were resistant to penicillin and cefexime.

Conclusions: Although maximum susceptibility of studied isolates of S. aureus, was observed against vancomycin, in order to prevent the indiscriminate use of such antibiotics routine antibiotic susceptibility test is emphasized.

Keywords: Prevalence, antibiotic susceptibility, Staphylococcus aureus, Namazi hospital, Shiraz, Iran

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