

## The Prevalence of Nasal Carriage and Antibacterial Susceptibilities of isolated *Staphylococcus aureus* From Cancer Patients in Namazi Hospital, Shiraz, Iran, 2011-2012

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**Background & Objectives:** *Staphylococcus aureus* is a virulent pathogen causing infections in hospitalized patients. Cancer patients undergoing chemotherapy are highly prone to infections because of suppression of their immune system. The spectrum of antibiotic resistances of these organisms makes them a threat to hospitals. Antibiotic resistance pattern of *S.aureus* can help physicians in use of appropriate antibiotics in treatments especially in cancer patients. The aim of this study was to determine the prevalence of nasal carriage of *S.aureus* among cancer patients and the antibacterial susceptibility of these bacteria isolated at Namazi hospital, Shiraz, Iran.

**Methods:** In this cross sectional study, all patients in chemotherapy ward of Namazi hospital during May 2011 to May 2012 were included ( 154(57%) females, 116(43%) males with 15-80 mean age years). Swab specimens were taken from the anterior nares of the patients and cultured microbiologically. Then, antibiotic susceptibility tests against a panel of antibiotics were performed for all of the isolated *S. aureus* by using disk diffusion methods.

**Results:** Of 270 samples studied 25 (9.26%) were culture positive for *S.aureus*. Antibiotic resistance rates to different antibiotics were as follows: linezolid 0 (0%), chloramphenicol 19 (76%), tigecycline 23 (92%), Oxacillin 2 (8%).

**Conclusion:** The most effective antibiotic against *S.aureus* isolates in this study was Linezolid. And, the most of *S.aureus* isolates in this research were resistant to tigecycline.

**Keywords:** *Staphylococcus aureus*; Cancer Patients; Namazi Hospital; Shiraz; Iran