

## Identification of Methicillin Resistant-*Staphylococcus Aureus* (MRSA) Strains from Hospital Personals by E-Test

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**Backgrounds & Objectives:** Researches have been indicated that the personals of hospital are the main sources and carries of *Staphylococcus aureus* and the most Methicillin-resistant *Staphylococcus aureus* (MRSA) strains are as hospital-acquired. Thus, the aim of this study was identification of Methicillin resistant-*Staphylococcus aureus* (MRSA) strains from personals of hospital (Shiraz and Jahrom) by E-test.

**Methods:** During the second six months of 1390, the samples of nasal and hand skin were collected from 600 personals of Shiraz and Jahrom hospitals. After isolation of *Staphylococcus aureus* by biochemical and microbiological procedures, determination of resistance antibiotic pattern and identification of Methicillin resistant-*Staphylococcus aureus* (MRSA) strains were carried out by disk diffusion Methods (CLSI) and E-test, respectively.

**Results:** In this study, 68 *staphylococcus aureus* isolates (11.33%) were collected from 600 personals. Antibiotic susceptibility test for 68 isolates showed that the most resistance antibiotics were oxacillin (91.17% ) and ampicillin (95.05%), and 32 isolates (47.06%) were Methicillin resistance based on E-test, and those were 13 isolates(40.623%) from operation room, 8 isolates (25%) from internal ward, 5 isolates (15.63%) from CCU, 4 isolates (12.5%) from dialysis unite and one isolate (3.13%) from each of pediatric ward and labour ward.

**Conclusion:** The results showed that E-test is a fast and accurate procedure for identification of MRSA strains and according to increased prevalence of these strains and incidence of nosocomial infections, it should be more considered for empirical antibiotic therapy by physicians.

**Keywords:** Methicillin Resistant-*Staphylococcus aureus*; MRSA; Hospital Personals; E-Test