

## Frequency and Pattern of Methicillin-Resistant *Staphylococcus Aureus* Isolated from Nosocomial Infections

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### Abstract

**Background and Objective:** Methicillin-resistant *Staphylococcus aureus* (MRSA) is a major pathogen involved in nosocomial infections. Because of increasing antibiotic resistance of these strains, treatment of these infections has become very difficult. This study aimed to determine the frequency and drug resistance pattern of MRSA isolates from nosocomial infections in hospitals.

**Material and Methods:** the isolates of *S.aureus* (n= 100) isolated from clinical samples such as: urine, blood, wound, throat, sputum, cerebrospinal fluid, catheter and other purulent discharge from in patients were identified using biochemical tests. MRSA strains were isolated by using agar screening method and then drug resistance pattern of them was determined by disk diffusion method.

**Results:** Out of 100 *S.aureus* strains, 65 (65%) were MRSA. Drug resistance of MRSA isolates to most antibiotics were high: penicillin 100%, oxacillin 100%, nitrofurantoin 80%, tetracycline 63%, erythromycin 58.4%, gentamicin 46.1%, clindamycin 33.8%, cotrimoxazole 35.3% and ciprofloxacin 26.1%. Also 35 of MRSA isolates were multiple drug resistance (MDR).

**Conclusion:** The prevalence of MRSA isolates and also their resistance to other antibiotics were high.

**Keywords:** Drug Resistance, Methicillin-Resistant *Staphylococcus Aureus*, Multi-Drug Resistant