

Nosocomial Infections and Drug Susceptibility Patterns in Methicillin Sensitive and Methicillin Resistant *S. aureus*

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Objectives

The drug resistance in nosocomial *S.aureus* is very common. The primary objective was to study the drug resistance in nosocomial *S. aureus* with special reference to methicillin resistance and inducible clindamycin resistance and to study the types of infections caused by methicillin resistant *S. aureus* (MRSA) and methicillin sensitive *S. aureus* (MSSA).

Methods

The study was a retrospective study based on bacterial culture and antibiotic susceptibility test results in the year 2009 - August 2011.

Results

Methicillin resistance was documented in 173 (25.25%) of the 685 isolates. Pus and wound swabs accounted for

the majority of isolates - 114 (65.89%), followed by high vaginal swabs - 22 (12.7%), central catheter tip -18 (10.4%), urine catheter tip, suction tip and others. Maximum percentage of MRSA were isolated from urine catheter tip (87.5%) followed by central catheter tip (38.3%) and sputum (33.3%). Relatively, a lower percentage of MRSA were isolated from pus and wound swabs (23.2%). Among a total MRSA of 173 (25.25%), the number that were also penicillin resistant were 155 (89.6% of MRSA), Cotrimoxazole - 151 (87.3%), Amoxiclav - 135 (78%), Ciprofloxacin - 112 (64.7%), Erythromycin - 94 (54.3%), Clindamycin - 79 (45.7%), Linezolid - 3 (1.73%), Gentamicin - 30 (17.3%), Netilmicin - 29 (16.8%), Vancomycin - 0 (0%). Induced Clindamycin resistance constituted 37 (21.38%) of MRSA.

Conclusion

Increased resistance to many antibiotics is due to indiscriminate use of antibiotics and inappropriate prescription. It can be prevented only by doing antibiotic susceptibility tests of clinical specimens prior to initiation of suitable antibiotic treatment for appropriate duration.