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**Abstract**

**INTRODUCTION:** WHONET is a freely downloadable, Windows-based database software which is used for the management and analysis of microbiology data, with a special focus on the analysis of antimicrobial susceptibility test results. Urinary Tract Infections (UTI) are a common medical problem and they are responsible for notable morbidity among young and sexually active women.

**OBJECTIVES:** The major objective of this study was the utilization and application of the WHONET program for the Antimicrobial Resistance (AMR) surveillance of uropathogens.

**METHODS:** A total of 3209 urine samples were collected from patients who visited Manipal Teaching Hospital with a clinical suspicion of UTI, during December 2010 to July 2011. The isolation and characterization of the isolates were done by conventional methods. Antimicrobial Susceptibility Testing (AST) was performed by Kirby Bauer's disc diffusion method. The data entry and analysis were done by using the WHONET 5.6 software.

**RESULTS:** Out of the 3209 specimens, 497 bacterial isolates were obtained and they were subjected to AST. Escherichia coli (66.2%) was the commonest bacterial isolate, followed by Enterococcus species (9.3%), Staphylococcus aureus (5.0%), and Klebsiella pneumoniae (4.2%). Among the gram-negative enteric bacilli, a high prevalence of resistance was observed against ampicillin and ciprofloxacin. The gram negative nonfermenters exhibited a high degree of resistance to ceftazidime. Staphylococcus species showed a moderately high resistance to

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CONCLUSION: This study, a first of its kind which was done in Nepal, was carried out by using the WHONET software to monitor, analyze and share the antimicrobial susceptibility data at various levels. This study was also aimed at building a surveillance network in Nepal, with the National Public Health Laboratory, Nepal, acting as a nodal centre. This would help in the formulation of antibiotic policies and in identifying hospital and community outbreaks at the nodal centre, as well as in sharing information with the clinicians at the local level.

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