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**Title:** Detection of Enterococci from urine samples in patients with UTI and kidney transplants by PCR

**Authors:** Adabiyan S*, Fallah F, Navidinia M, Malekan M, Esmaeilnejad N, Sarrafi H

**Abstract:**

Background and Objectives: An integron is a two component gene capture and dissemination system, initially discovered in relation to antibiotic resistance, and which is found in plasmids, chromosomes and transposons. The first component consists of a gene encoding a site specific recombinase along with a specific site for recombination, while the second component comprises fragments of DNA called gene cassettes which can be incorporated or shuffled. In the basis of recent studies performed in United States of America and Europe the incidence of vancomycin-resistant Enterococci (VRE) has increased both in the non-transplanted and transplanted patients.

Material and Methods: Urine samples from 90 patients with UTI were examined and then Gram negative bacteria and Enterococci were isolated. Susceptibility testings were performed by disk diffusion method based on CLSI protocol. DNA of isolated bacteria purified by Qiagen kit and then antibiotic resistance genes were detected by PCR.

Results: Ninety urine samples from kidney transplant patients were cultured on the B.A, Ch.A & EMB. Only 31 samples were positive culture that nine of them were Enterococci. Antibiotic resistance pattern was: Nitrofurantoin 12.5%, meropenem 37.5%, Imipenem 37.2%, Cefotaxime 37.6%, Cefepime 50.1%, Chloramphenicol 75.1%, Gentamycin 75.3%, Ciprofloxacin 50.7%, Aztronam 44.5%, Clindamycin 44.7%, Erithromycin 44.12%, Penicillin 55.6%, Vankomycin 33.7%, Rifampicin 11.12%, Linezolide 11.33%.

The prevalence of antibiotic resistance genes was: OXA 2.5%, DHA 1.25%, VEB 1.25%, VIM 7.5%, FOXup 7.5%, NHAmpl 31.25%, CTX 72.3%, PER 7.5%, IntI1 8.12%, IntI2 6.75%, IntI3 0%.

Conclusion: VRE is a major concern in kidney transplantation patients with UTI. Finally, so randomized trials of available antimicrobial therapies should be performed with attention given to both efficacy and safety issues in transplantation.

**PCR, Integron, Enterococcus, Antibiotic resistance, VRE**

**Presentation:** Poster