

**Molecular Epidemiology of Antibiotic-Resistant *Escherichia coli* Isolated  
from Hospitalized Patients with Urinary Tract Infections  
in Northern Palestine**

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Received in revised form 31 October

**Abstract**

Eighty isolates of *Escherichia coli* were collected in Northern Palestine throughout the 1996 to 2000 period from hospitalized patients with urinary tract infections (UTIs). Resistance rates were ampicillin, 65%; co-trimoxazole, 55%; cefuroxime, 10%; cefotaxime, 7.5%; ceftazidime, 2.5%; ciprofloxacin, 12.5%; gentamicin, 6.25% and amikacin, 1.25%. No imipenem-resistant isolates were identified. To determine whether this was due to intra-hospital transmission of resistant strains, clonal structure of 10 multiple-resistant isolates was examined by genomic DNA fingerprinting by enterobacterial repetitive intergenic consensus-polymerase chain reaction (ERIC-PCR) and all were clonally distinct. Thus, these strains are likely resistant due to convergent acquisition of resistance determinants by genetically unrelated uropathogenic strains rather than epidemic spread of resistant isolates.

**Key words:** *E. coli*, antibiotic-resistance, DNA fingerprinting, ERIC-PCR

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