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## **Update on Antibacterial Resistance Patterns of Bacteria Isolated from Urine Cultures in Al Fayoum University Hospital**

**Aim:** To investigate the profile of common uropathogens isolated from urine specimens of children submitted to the diagnostic microbiology laboratory at Al Fayoum University Hospital and assess their antimicrobial susceptibility patterns to commonly used antimicrobial agents.

**Methods:** We conducted a retrospective analysis of laboratory reports for all urine specimens of children (6 months-14 years) submitted for investigations over a 1-year period (November 2009 - October 2010).

**Results:** Out of the total specimens (1493) received over the 1-year study period, 30.2% (451) of the urine samples were culture-positive, the majority (82.1%) were from females. The most common isolate was *Escherichia coli* (76.1%) followed by *Klebsiella* species (12.2%) and *Enterococcus faecalis* (9.2%). The Gram-negative isolates displayed a very high level of resistance to amoxicillin-clavulanate, ampicillin Sulbactam and co-trimoxazole, whereas resistance to imipenem, amikacin and gentamicin was the lowest. *E. coli* isolates were susceptible to imipenem (100%), amikacin (90%), nitrofurantoin (88.6%) and nalidixic acid (86.2%). However, *Klebsiella*, *Proteus* and *Pseudomonas* are less susceptible to nitrofurantoin (resistance was 22.2%, 87.0% and 100% respectively).

**Conclusions:** *E. coli* was the most common etiological agent identified, and remained susceptible to nitrofurantoin.