

Clinical Presentation, Culture and Sensitivity Pattern of Urinary Tract Infection

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Background: The incidence and prevalence of Urinary Tract Infection (UTI) vary in different parts of the world. There is limited data available on pediatric UTI in Bahrain. The diagnosis depends on clinical suspicion and urine culture sensitivity.

Objective: To evaluate the most common presentations and most common organisms in UTI in different age groups. In addition, to evaluate the appropriate empirical antibiotic therapy.

Design: A Retrospective Study.

Setting: Emergency Medicine Department, King Hamad University Hospital, Bahrain.

Method: One hundred four children diagnosed with UTI from July 2015 to July 2016 were included in the study. Children were divided into three groups according to age; group 1 (>1 month to <1 year), group 2 (1 year to <5 years) and group 3 (5 years to 14 years). Clinical presentation, sampling technique and organisms causing UTI with sensitivity and resistance pattern were documented.

Result: One hundred four children with culture-positive UTI were included in the study. Fever, 67 (64.4%), was the most common symptom followed by vomiting, 49 (43.3%), and abdominal pain, 45 (28.8%). In groups 1 and 2, fever was the most common presentation, 16 (84%) and 24 (61.5%), respectively. Abdominal pain was the most common symptom in group 3, 33 (71.7%). Thirty-six (34.6%) had UTI caused by *E. coli* followed by 31 (29.8%) caused by *E. coli* ESBL. Five (4.8%) were caused by *Pseudomonas* (4.8%) and 4 (3.8%) by *Klebsiella*. Among the empirical antibiotics used, Cefuroxime was found to be more sensitive than Augmentin against *E. coli*. Fifty-four (51.9 %) of the urine samples were collected by mid-stream clean catch.

Conclusion: The most common UTI symptoms were fever, vomiting and abdominal pain. UTI was more common in females than males. *E. coli* is the most common organism cultured in urine samples. Cefuroxime is more sensitive against *E. coli* than Augmentin.