

Clinical and bacteriological profile of urinary tract infection in children  
attending Pyin Oo Lwin General Hospital

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**Abstract**

Urinary tract infections (UTI) is one of the most common bacterial infections in children which can result in significant complications if left untreated. The study was done to access the clinical and bacteriological profile causing UTI in children. A total of 110 children (3 to 12 years) at Pyin Oo Lwin General Hospital from February 2018 to December 2018 were enrolled in this study and analyzed the data. In this study 18 (16%) patients out of 110 participants revealed urinary tract infection according to mid-stream urine culture result. Of these male were 11(61%) and female were 7(39%). Majority of these patients had fever (82%). Other clinical features were abdominal pain (19%) frequency (14%), dysuria(3.6%), Haematuria(3.6%) and vomiting (2.7%). Gram negative (72%) were the predominant organisms isolated in the present study. *Escherichia coli* was isolated from 7 cases(38%), *Acinetobacter baumannii* from 2 cases(11%), *Pseudomonas aeruginosa* from 1 case(5.5%), *Proteus* from 1 case(5.5%), *Yokenella regensburgei* from 1 case (5.5%), *Sphingomonas paucimobillis* from 1 case (5.5%). Gram positive were 5 cases (27%) and 3(16.3%) cases were *Staphylococcus haemolyticus* and 2(11%) cases were *Enterococcus faecalis*. Most of the organisms were highly sensitive to Nitrofurantoin and Amikacin. Sensitivity to quinolones and third generation Cephalosporins varied according to the organism. *E. coli* was 100 % sensitive to Amikacin and Nitrofurantoin. *E. coli* was 100% resistant to Cefotaxime, Ceftriaxone, Cefazolin and Cefepime and highly resistant to Amoxicillin/Clavulanic acid(70%), Cotrimoxazole(86%). *Staphylococcus haemolyticus* was 100% sensitive to Vancomycin, Linezolid, Gentamycin, Ciprofloxacin, Levofloxacin and Nitrofurantoin. *Staphylococcus haemolyticus* was highly resistant to Flucloxacillin, Cloxacillin, Cefixime and Amoxi-clav. *Enterococcus faecalis* was 100% sensitive to Vancomycin, Linezolid and Nitrofurantoin and (100%) resistant to Imipenem, Erythromycin, Cefotaxime, Cephalaxin, Cefuroxime, Cefixime, Cefoparazone, Ceftazidime and Tetracycline.

Conclusion: In this study male are more affected than female .It also highlight the common pathogen causing UTI in children in Pyin Oo Lwin General Hospital and the sensitivity patterns which could help clinicians in starting empirical antibiotic for patients while waiting urine culture results. *Ecoli* as the most common organism for UTI has not change but sensitivity to amoxicillin-clavulanic acid and Cotrimoxazole is low and large scale studies are required to monitor the antibiotic resistance to start appropriate empirical treatment for UTI.