

1039. Urinary Tract Infections in an African Teaching Hospital, a Comparison of Antimicrobial Susceptibility of Inpatient and Outpatient and Catheter Associated Risks.

Alex Owusu-Ofori, MD¹; Yaw Boaitey, BSc²; Enoch Frimpong, MD¹;

¹Clinical Microbiology, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; ²Microbiology, Komfo Anokye Teaching Hospital, Kumasi, Ghana

Session: 121. UTIs: Management and Issues in Drug-Resistance

Friday, October 10, 2014: 12:30 PM

Background. Nosocomial infections associated with resistant micro-organisms leads to increased morbidity. Urinary tract infections (UTI) especially catheter associated UTI (CAUTI) is one of the common nosocomial infections. We compared isolation rates and antibiotic susceptibility patterns between isolates from In-patients and Outpatients and from CAUTI and non-CAUTI patients.

Methods. A four month prospective study involved 2232 urine samples from patients at the Komfo Anokye Teaching Hospital in Kumasi, Ghana. Of these, 759 patients were randomly selected and interviewed to determine whether they had been catheterized or not. Bacteria were identified by standard microbiological and biochemical methods. Antimicrobial susceptibility testing was performed on all bacterial isolates.

Results. The median age of patients was 28 years and in-patients made up 46.3% of participants. The rate of positive cultures was 26% and the most frequent isolates were *E. coli*- 42.5%, *Klebsiella spp*-25.9%, Coliforms-7.4% and *Candida spp*-3.4%.

Inpatients had more positive cultures (31.3% vs 22.8%, p value <0.0001) but the micro-organisms isolated were similar. The odds of a catheterized patients having UTI was 1.99 (95%CI 1.40-2.85). Positive cultures was significantly higher in catheterized than non-catheterized patients (43.4% vs 27.7%, p value <.0001) and Isolates were similar except for *Pseudomonas aeruginosa* being the 4th leading isolate from the CAUTI group.

The most effective antimicrobials against gram negative bacteria were meropenem and amikacin with sensitivities of 97.4 and 96.7% respectively. Resistance of *E. coli* to antimicrobials was significantly lower in Outpatient than Inpatient, including gentamicin 48.7% vs 66.1%, ciprofloxacin 57.7% vs 65.6%, ceftriaxone 65.7% vs 87.5% and ceftaxidime 36.8% vs 48.9%. *Klebsiella spp* had a similar trend as *E. coli*. There was no significant difference of antimicrobial resistance between isolates from catheterized and non-catheterized patients.

Conclusion. *E.coli* was the commonest pathogen. Resistance rates of urine pathogens amongst In-patients were higher than in Out-patients. These findings suggest that different empirical prescriptions may be necessary for Inpatients and Outpatients.

Disclosures. All authors: No reported disclosures.