

JOINT EVENT

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**Bacterial isolates and their current drug susceptibility profile from urine among asymptomatic pregnant women attending at the Felege Hiwot Referral Hospital antenatal clinic, northwest Ethiopia**Awoke Derbie<sup>1</sup>, Daniel Mekonnen<sup>1</sup>, Enyew Abate<sup>1</sup>, Senait Tadesse<sup>2</sup>, Tigist Birku<sup>2</sup> and Fantahun Biadlegne<sup>1</sup><sup>1</sup>Bahir Dar University, Ethiopia<sup>2</sup>Felege Hiwot Referral Hospital, Ethiopia

**Background:** Asymptomatic bacteriuria (ASB) is common during pregnancies that have potentially serious consequences for maternal and fetal health. The rapid emergence of antimicrobial resistance necessitates continuous monitoring of the susceptibility patterns of pathogens in the urinary tract of pregnant women. The purpose of this study was to identify bacterial pathogens from asymptomatic pregnant women and by extension to determine the antimicrobial susceptibility profile of these isolates.

**Methods:** A prospective cross-sectional bacteriological study was conducted at Felege Hiwot Referral Hospital (FHRH) from 1 Feb to 30 May 2016. Freshly voided clean catch midstream urine samples were collected and processed using conventional culture and biochemical tests as per the standard protocol. A concentration of >10<sup>5</sup> cfu/ml in urine sample was considered culture positive for asymptomatic bacteriuria (ASB). Isolates were tested against the commonly used antibiotics by Kirby-Bauer disc diffusion methods. The degree of susceptibility pattern was determined based on the Clinical Laboratory Standards Institute. Descriptive and Chi-square test was done using SPSS version 22, p<0.05 was considered to be significant.

**Results:** Out of the 234 pregnant women attending the antenatal clinic in the study site 11.5 % (27/234) were positive for ASB. The mean age of participants was 26.8 years (ranged 18–41 years). The majority, 139 (59.4%) of them were primigravida. Most of the participants at 134 (57.3%) were in the 3rd trimester. Among the study subjects, 20 (8.5%) were HIV sero-positive. History of diabetes was found significantly associated with ASB (p=0.019). A total of 27 bacterial uropathogens were identified. Out of these, Gram positives consisted at 20 (74.1%). The predominant isolates were *S. saprophyticus* at 48.2% (13/27) followed by *S. aureus* at 22.2% (6/27) and *E. coli* at 11.1% (3/27). Eleven (84.6%), 10 (76.9%) and 9 (69.2%) of 13 isolates of *S. saprophyticus* were found to be resistant for co-trimoxazole, oxacilin and tetracycline respectively. No resistance was documented for amoxicillin-clavulanic acid and ciprofloxacin among gram positives.

**Conclusions:** The observed prevalence of ASB and drug resistance profile of the isolates call stakeholders to strength the infection prevention practices

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