1138. Prevalence and Accuracy of Screening Test of Asymptomatic Bacteriuria During Pregnancy in Siriraj Hospital
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Background. The early detection and treatment asymptomatic bacteriuria (ASB) during pregnancy prevents maternal and fetal complication. Thus the American College of Obstetricians and Gynecologists (ACOG) recommends urine culture should be obtained at the first prenatal visit and the US Preventive Services Task Force obtains urine culture during 12-16 weeks of gestation. The new prenatal care (ANC) model of Thailand Ministry of Public Health uses screening at first ANC by urine dipstick. However, neither research nor routine ASB screen in Siriraj Hospital because there was low prevalence and all pregnancy was screened by the obstetricians.

Methods. A prospective cohort study was performed at the ANC clinic, OB-GYN department, Siriraj Hospital. Pregnancies of first antenatal care visit during January to December 2015 were enrolled. Urine culture (UC), Urine dipstick for nitrite (UDN), and Urine dipstick for leukocyte esterase (UDE), were performed. Subjects’ baseline characteristics until delivery were collected.

Results. Total 702 subjects were enrolled; median age, 28 yrs (range 16–45) and body mass index, 24.1 (range 14.0–44.3). The ASB prevalence was 2.3% (16 from 702) without significant difference between first, second, and third trimester, P = 0.185. The most common organism was E. coli. Factors related to ASB were heart disease, P < 0.001 and having sexual intercourse during pregnancy, P = 0.005. The sensitivity and specificity of UDN and UDE were 37.5% and 99.0% and 56.3% and 55.7%, respectively. Positive predictive value and negative predictive value of UDN and UDE were 46.2% and 2.9% and 98.5% and 98.2%, respectively. No abnormal maternal and fetal outcomes were reported.

Conclusion. According to very low prevalence of ASB in Siriraj hospital, routine urine culture may be unnecessary for all antenatal pregnancy. However, heart disease and sexual intercourse during pregnancy should be considered for screening and treatment. However, further evaluation of outcome, i.e. UTI, maternal and fetal complication of non-screening for ASB should be studied.

Disclosures. All authors: No reported disclosures.

1140. Significance of Prior Culture History for Predicting Urinary Tract Infection Caused by Multi-drug Resistant Enterobacteriaceae
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Background. Extended-spectrum β-lactamase (ESBL) producing E. coli, Klebsiella pneumoniae (Kp), and Proteus spp. (PP), that cause urinary tract infections (UTI) are resistant to first-line therapies (e.g., ceftriaxone). Prediction of UTI caused by ESBL-producing organisms is important for selection of empirical therapy. The objective was to develop a prediction model to identify UTI caused by ceftriaxone (CRO) resistant ESBL-producing organisms and compare the model to other commonly cited predictive models (Tumbarello M et al. AAC Jul 2011; Johnson SW et al. IJCHAP Apr 2013).

Methods. A single-center, matched, case-control of Veterans Affairs (VA) outpatients with a positive (≥10^4 CFU/mL) urine culture was conducted. Patients were excluded if they had no UTI diagnosis or documented symptoms, age <18, transfer from another hospital, or a significant urine culture result. Cases were defined as any patient with a CRO-resistant EK; controls were matched 4:1 to cases based on incidence density (≤30 days) by random selection. Logistic regression and receiver operator curves were used to develop and assess models.

Results. One hundred subjects were included in the analysis. Demographics were similar except for age (Case 73.5 years (13.7); Control 64.5 years (15.2); P = 0.02) and history of CRO-resistant EK in last 6 months (Case 40%; Control 8%; P < 0.01). Predictor variables in the final model (Likelihood ratio CRO EK, P < 0.01) included history of CRO-resistant EK in last 6 months (131.5, 12.2-18308.0), cephalosporin use in last 60 days (12.7, 1.9-94.5), residence in a skilled nursing or assisted living facility (8.0, 1.6-40.5), and hospitalization in last 6 months (OR 3.0, 95% CI 0.7–12.5). In the VA population, the other models predicted significance using a threshold less than shown in Figure 1.

Conclusion. Prior cephalosporin use, hospitalization, and residence were important predictors of UTI caused by CRO-resistant EK; however, prior history of CRO-resistant EK was the most important predictor. A Model that included prior culture results predicted CRO-resistant EK but can be considered a limited model that does not contain prior ESBL history. Prior culture data should be considered when selecting empirical antibiotics for UTI. Validation in a larger cohort is warranted.