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Prevalence of UTI and its association with glycemic levels, common uropathogens involved, and antibiotic resistance among diabetic patients
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Abstract
Diabetes mellitus (DM) is an important medical and public health issue world widely. The in-cidence has been exponentially increased in the majority of developing countries. Evidence revealed that diabetics are more prone to infections than non-diabetic patients. UTI is one of the infections that occurs more frequently among DM patients. This cross-sectional study aimed to assess the prevalence of UTI among DM patients, common uropathogens involved, and antibiotic resistance patterns. The target popu-lation was DM patients in Malaysia. A total of 348 DM patients were randomly selected as subjects for this study. This study was carried out using a purpose-developed data collection form to collect information about the patient's demographic characteristics, medication prescribed for DM, comorbidities, glycaemic control status, occurrence and type of UTI, uropathogens identified in culture and sensitivity and antibiotics prescribed for the treatment of UTI. The prevalence of UTI among DM patients was 40.2%. Further-more, the prevalence among females was higher than males and UTIs ware significantly associated (p < 0.05) with poorly controlled glycemia. Cystitis was the most prevalent UTI. The most common uropathogen identified from the urine of DM patients was Escherichia coli. Resistance patterns showed that most bacteria developed resistance against ampicillin, TMP/SMX, and cefotaxime. Cephalosporins were the most commonly prescribed antibiotics followed by penicillins. This study determined the prevalence of UTI, antimicrobial susceptibility, common uropathogens involved, and antibiotic resistance among diabetic patients. © 2020, Colegio de Farmaceuticos de la Provincia de Buenos Aires. All rights reserved.

Author Keywords
Antibiotics; Antibiotics resistance; Diabetes mellitus; Malaysia; Uropathogens; UTI

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