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A study of comparative effectiveness of different oral antibiotics regimens for treatment of urinary tract infection in outpatients of Olabisi Onabanjo University teaching hospital between 2014 to 2016

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Urinary tract infections (UTIs) are a major cause of morbidity, and healthcare resource expenditure. In the Nigeria, there are at least 2 million annual incidences of UTI. Women are more susceptible to UTIs and have a 50% chance of experiencing at least one episode of UTI during their lifetime. According to the Infectious Diseases Society of America (IDSA) consensus UTI treatment guidelines, Trimethoprim–sulfamethoxazole (TMP-SMX) and fluoroquinolones can both be used in different types of UTIs. Randomized controlled trials (RCT) have demonstrated that TMP-SMX and fluoroquinolones have equal efficacy in both complicated and uncomplicated UTIs However there are limited data on the post marketing outcome comparison of different guideline antibiotic regimens for patients with urinary tract infections (UTIs). We carried out an Outpatient Patient Population-based comparative effectiveness study from year 2016 to 2016, using the administrative data of 500 patients from the Medical record, Outpatient Department, Olabisi Onabanjo University Teaching Hospital in Nigeria. Treatment failure was defined as either hospitalization or emergency department visits for UTI. Odd ratios were computed using conditional logistic regression models matched on propensity score. We identified 500 individuals with UTI, of whom 250 (50%) received trimethoprim–sulfamethoxazole (TMP-SMX), 70 (14.0%) received ciprofloxacin, 60 (12.0%) received levofloxacin, 50 (10.0%) received ofloxacin, and 70 (14%) received norfloxacin. Compared with TMP-SMX, the composite treatment failure was significantly lowered for norfloxacin in propensity score (PS) matching analyses (OR, 0.76; 96% CI, 0.44–0.99). Both norfloxacin (PS-matched OR, 0.62; 95% CI, 0.45–0.96) and Ofloxacin (PS-matched OR, 0.68; 94% CI, 0.49–0.99) had significantly lowered composite treatment failure rate when compared with ciprofloxacin. Individual analysis suggested that both norfloxacin and ofloxacin were more effective in patients without complications (without indwelling catheters and bedridden status), when compared with either TMP-SMX or ciprofloxacin.