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**Background:** Fosfomycin trometamol is a broad spectrum antibiotic used in uncomplicated, low urinary tract infections (UTI) in women.

**Purpose:** To describe the use of fosfomycin trometamol in UTI, in a third-level hospital.

**Material and methods:** Hospitalized patients in treatment with fosfomycin trometamol between May 2015-September 2016. Demographic and clinical records, microbial cultures and antibiotic use were collected retrospectively. Indication and treatment duration was evaluated according to the hospital's empirical antibiotic treatment guidelines.

**Results:** 54 patients were included, 45 women (83,33%), mean age 68.29 years (range 22,85-91,59). 49 patients (90.74%) hospitalized in medical units and 5 (9,26%) in surgical units. 14 patients (25,93%) had a urinary catheter, removed in 6 patients (not recorded in the others). 32 patients (59,26%) had a urinary culture requested, of which: 28 (87,5%) positive (27 were sensible to fosfomycin, 1 resistant), 4 (14,29 %) negative. Bacterial isolates were: in 64,29% (18/28) of the cultures *E coli*, of which 27,78% (5/18) were extended-spectrum  $\beta$ -lactamase-producing *Escherichia coli* (ESBL); *Klebsiella pneumoniae* in 10,71% (3/28); *Proteus mirabilis* in 7,14% (2/28), *Pseudomonas aureginosa* in 3,57% (1/28) and 14,29% (4/28) were mixed cultures. In 34 patients (62.96%) was used empirically, 20 (37.04%) were targeted treatments, and none were used as prophylaxis. 25 patients (40.30%) received 1 single-dose, 15 (27.78%) patients received 2 doses and 14 (25.93%) patients received from 3 to 10 doses. Fosfomycin trometamol was used in symptomatic bacteriuria in 38,89% (21/54) patients, in low UTI in 59,26% (32/54) patients and in urinary sepsis in 1,85% (1/54) patients. According to the hospital's empirical antibiotic treatment guidelines fosfomycin trometamol should be used as 3g single oral dose, or two doses 24-72 hours apart, for the treatment of low urinary tract infections (UTI) in women. Asymptomatic bacteriuria should not be treated unless pregnancy, neutropenia, and antimicrobial prophylaxis in specific procedures. Urinary catheter should always be replaced in ITU. According to the hospital's guide, fosfomycin trometamol was not indicated in 37,03% (20/54) patients. Treatment duration was inadequate in 33,33% patients (18/54). Only 6 patients had urinary catheter replacement.

**Conclusion:** Fosfomycin trometamol is a broad spectrum antibiotic which is not adequately used in our hospital (neither indication, nor duration). It should be used according to our hospital's empirical antibiotic treatment guidelines. Clinical Pharmacists can play an important role assessing antimicrobial use.

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