Fosfomycin in vitro resistance of *Escherichia coli* from the community

It is common practice in many places all over Brazil to use fosfomycin in the treatment of uncomplicated urinary tract infections, although resistance profile is not currently well-known in our country.

We would like to report the findings of *in vitro* activity of fosfomycin against 240 non-duplicate consecutive *E. coli* strains isolated from community urinary samples (> 10^5 CFU/mL in October 2009) from Curitiba (Paraná, Brazil). Susceptibility test were performed according to CLSI, using disk diffusion with 200 mg of fosfomycin disk with zone diameter breakpoint as recommended by CLSI. Clinical data were not evaluated and no statistical analysis was performed, considering the descriptive nature of the study.

The susceptibility of *E. coli* to fosfomycin was 98.8% and to other antibiotics ranged from 66.3 - 99.2% as follows: sulfamethoxazole (66.3%), nalidixic acid (78.3%), quinolones (81.3%, including ciprofloxacin, levofloxacin and norfloxacin), amoxicillin/clavulanic acid (88.7%), nitrofurantoin (99.2%) and ceftriaxone (99.2%).

In the present study *E. coli* isolates from patients with urinary infection were highly susceptible to fosfomycin. These data suggest that fosfomycin may be a good alternative for first line antimicrobial treatment of uncomplicated low urinary tract infections. It is well-known that variations in bacterial resistance patterns for *Escherichia coli* occur amongst different populations. It is mandatory for clinicians to be constantly aware of the local bacterial resistance profiles in order to update empirical antimicrobial regimens. Fosfomycin also seems to be a reasonable option for bacteria other than *E. coli*, such as *Enterococcus*. In our area, fosfomycin is a good option, but this cannot be extrapolated to other regions of the country. On going surveillance studies are needed in the country.

**REFERENCES**


