

Title: PREVALENCE AND PROFILE OF ANTIMICROBIAL RESISTANCE IN OUTPATIENTS WITH URINARY TRACT INFECTION

Authors Dias, T.M.C.¹, Benini, R.C.R.¹, Resende, D.A.¹, Souza, A.J.¹, Pires, B.A.¹, Gonçalves, J.C.¹, Peron, G.R.C.¹, Oliveira, L.G.^{1,2}

Institute ¹ FUPAC Ubá - Faculdade Presidente Antônio Carlos de Ubá (Rua Lincoln Rodrigues Costa 165 – Bairro Boa Vista – Ubá – MG – 36500-000), ² UFJF – Universidade Federal de Juiz de Fora (ICB - Rua José Lourenço Kelmer, s/n - Campus Universitário)

Abstract:

Urinary tract infection (UTI) is one of the most prevalent infections in the world. In the choice of pharmacotherapy, the doctor may consider the prevalence and antimicrobial resistance of each region, since often the prescription is carried out without the result of urine culture. Thus, the aim of this study was to investigate the most prevalent bacteria and the antimicrobial resistance profiles in UTI patients of Rio Pomba-MG. We analyzed 68 urine cultures results from november 2014 to january 2015. Urine samples were collected in LABCLIN (Rio Pomba - MG) with addition of boric acid (as preservative) and sent to a laboratory of clinical analyses in Curitiba – SC for analysis. Of the 68 urine cultures analyzed, 33.8% showed positive results for UTI. Among them, 78.26% were female, confirming that this gender is most commonly affected by UTI. Patients with over 65 years old were also among the most affected age group too. *Escherichia coli* (47.8%), *Enterococcus sp* (13%) and *Proteus mirabilis* (13%), were the principal microorganisms found. Analyzing the antimicrobial resistance profile, *Escherichia coli* showed a significant resistance of nalidixic acid (54.5%), ampicillin (54.5%) and trimethoprim/sulfamethoxazole (36.6%). *Enterococcus sp*, presented 100% resistant to clindamycin, 66.6% to ampicillin and 66.6% for benzylpenicillin and gentamicin. *Proteus mirabilis* all were resistant to nitrofurantoin. Therefore, we conclude that studies on the prevalence and antimicrobial resistance in geographic regions are of great importance in the help the medical community on the choice of antibiotics empirically, when you can not have the result of urine culture and sensitivity testing to antibiotics. Studies like this assist in the optimization of treatment UTI and reduction of antibiotic resistance rates.

Keywords: Urinary tract infection, urine culture, antimicrobial resistance.