

## **IS LEVOFLOXACIN TREATMENT A HIGH-RISK FOR CLOSTRIDIUM DIFFICILE INFECTION?**

M. Chmielewska, M.Cieplak, T. Rusinowicz, K.A.Wardyn, K.Życińska

Department of Family Medicine with Internal and Metabolic Diseases Ward, Medical University of Warsaw, Poland, ul. Stępińska 19/25, 00 – 739 Warszawa, tel./fax 22 3186325, e-mail address: magdalena.o.chmielewska@gmail.com

*Clostridium difficile* infection (CDI) is one of the most common gastrointestinal complication after an antimicrobial treatment. The incidence of CDI is still growing worldwide, despite increasing knowledge and prevention. The aim of the study was to assess the impact of levofloxacin intake on severity, mortality and recurrence of *CDI* after pneumonia treatment. A retrospective analysis of 403 patients with CDI in the Internal Medicine Ward, Medical University of Warsaw was conducted. In 189 (47%) patients who were treated for pneumonia CDI was diagnosed. In years 2012-2014 majority of patients were treated with amoxicillin with clavulanate, ceftriaxone, ciprofloxacin and cefuroxime. Nearly half of patients was provided with levofloxacin as a first choice antibiotic beginning from 2015 in order to decrease CDI incidence and complications. In 5 year observation CDI mortality was respectively: 24% in 2012, 30.7% - 2013, 12.9% - 2014, 16.7% - 2015, 25.6% - 2016. Number of relapses were significantly lower after levofloxacin treatment ( $p < 0.05$ ). The study shows there is an upward trend in incidence and mortality in CDI despite changing antibiotic choices. Levofloxacin treatment is followed by similar severity and mortality as the other antimicrobial agents. However levofloxacin may be the antimicrobial agent to decrease CDI relapse.