

JOINT EVENT

12<sup>th</sup> Global Gastroenterologists Meeting

&amp;

3<sup>rd</sup> International Conference on Metabolic and Bariatric Surgery

March 15-16, 2018 Barcelona, Spain

**Epidemiological and clinical features of hospitalized patients with diarrhoea caused by *Clostridium difficile* (*C. difficile*) infection in a teaching hospital in Croatia**Nikolina Bogdanić<sup>1</sup> and Mirjana Balen Topić<sup>1,2</sup><sup>1</sup>University Hospital for Infectious Diseases Dr. Fran Mihaljević, Croatia<sup>2</sup>University of Zagreb, Croatia

**Background:** Recent increase in disease severity, prevalence, and recurrence, as well as strong relationship with health services has prompted research, surveillance, and development of preventive strategies for *C. difficile* infection (CDI). Since there is scarce data available in Croatia, we performed this study to assess the epidemiological and clinical features of CDI in hospitalized patients.

**Materials & Methods:** This retrospective observational study included patients of all ages with laboratory confirmed CDI, hospitalized at the 232-bedded University Hospital for Infectious Diseases Dr. Fran Mihaljević, Zagreb, Croatia during the period from 2013 to 2016. The patients were divided to those with community-associated, with healthcare-associated, and those with unknown CDI association. The disease severity was classified as mild, moderate, severe, and severe complicated. The length of hospital stay (LOS) after CDI diagnosis, intensive care unit (ICU) treatment due to CDI and mortality rate were observed as outcome indicators. Statistical analysis was performed to evaluate the differences between epidemiological groups and to assess the trends through observed years.

**Results:** Among 776 included patients 56.9% were females ( $p=0.0001$ ), 75.6% were  $\geq 65$  years old, 75.8% had healthcare-associated, 15.7% had community-associated CDI, and in 8.5% the association was unknown. Overall mortality rate was 10.2%, mean LOS was  $13.9 \pm 14.0$  days, and 2.4% of patients required ICU treatment due to CDI. In comparison to patients with community-associated CDI, the proportion of patients with healthcare-associated CDI ranged from 79.5-85.8%, and gradually increased ( $p=0.0395$ ) through observed years. Patients with healthcare-associated CDI were older: median: 76vs70 years ( $p=0.0266$ ), had higher disease severity ( $p<.0001$ ), longer LOS: mean  $14.83$ vs $10.13$  days ( $p<.0001$ ) and higher mortality rate ( $11.7$ vs $3.3$ %;  $p=0.0047$ ), but the difference between the groups in the need for ICU treatment due to CDI ( $2.9$ vs $1.6$ %) was not significant ( $p=0.7560$ ).

**Conclusion:** Healthcare-associated CDIs present a growing problem in the hospital care of observed population. Increasing incidence, high disease severity, high LOS and mortality rate suggest the need for improvement of efforts in preventing healthcare-associated CDIs among Croatian population.

nikolinabogdanic@gmail.com