Abstract Group: 10.1. Respiratory Infections
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Title: Pneumonia and Clostridium difficile infection: Hospital acquired infection in a non-ICU department

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Body: The antibiotic use for pneumonia treatment contributes to the worldwide spreading of Clostridium difficile infection (CDI). Among all hospital acquired infections, CDI is an emerging cause of hospital morbidity, mortality and costs. We investigated the prevalence of CDI acquisition rates in patients hospitalized with pneumonia and compared all causes of inhospital mortality among patients with and without CDI. The study considered all patients admitted to Internal Medicine Dept. of a tertiary care university hospital in Milan between 2007 to 2010. Analysis based on aggregated hospital routine data using the ICD-9-codes indicating pneumonia and CDI. Results Among 3560 hospital admissions, 17.9% had a diagnosis of pneumonia, 3.9% of CDI. Among overall CDI, pneumonia was 35.5%, while CDI among all pneumonias were 7.7%. The patients with both illness were older (81.8 yrs) and had a longer length-of-stay (30.2 d). In-hospital mortality was 26.5% in the group with both pneumonia and CDI, higher than in the other groups (pneumonia 17.7%, CDI 11.2%).

It is well-known that antibiotic therapy for pneumonia, mainly based on newer fluoroquinolones, b-lactams and macrolides, combined with high-dose or long-term use of proton pump inhibitor drugs increase the risk of CDI. Our data suggest that CDI could be a very common etiology of hospital acquired infection also in non-ICU and non-outbreak setting with low endemic rate.