RESIDUAL EFFECTS OF PROTON PUMP INHIBOTORS ON THE RISK OF COMMUNITY ACQUIRED CLOSTRIDIUM DIFFICILE

J. A. Delaney[1,2], S. Dial[1], A. Barkun[1,2], S. Suissa[1,2]

[1]*McGill University Health Centre, Montreal, Canada*
[2]*McGill University, Montreal Canada*

Email: *chris.delaney@clinepi.mcgill.ca*

Context: Recent reports suggest that the use of gastric acid suppressants such as proton pump inhibitors (PPI) increases the risk of *Clostridium difficile* associated disease (CDAD). We assessed whether and after how long the discontinuation of PPI use decreases this excess risk. We conducted a population-based case-control study using the United Kingdom's General Practice Research Database (GPRD). We identified 1233 patients with a diagnosis of *C. difficile* recorded between 1993 and 2004 among all subjects registered for at least 2 years in each practice. Each community-acquired case, defined as not hospitalized for any reason in the prior year, was matched on practice and age with ten control subjects who were also not hospitalized in the prior year. The risk associated with current and past PPI use was estimated after adjusting for other known risk factors such as age, antibiotic exposure and co-morbid illnesses. Results: Current users (a prescription for a PPI in the past 90 days) had a relative risk (RR) of CDAD of 2.9 (95% confidence interval (CI): 2.4-3.4). We considered past users with a PPI prescription between 91 and 180 days ago (RR 2.0; 95% CI: 1.2-3.1), between 181 and 365 days ago (RR 1.6; 95% CI: 1.1-2.5) as well as between 1 and 2 years ago (RR 1.1; 95% CI: 0.7-1.6). Conclusion: The increased risk of CDAD due to exposure to PPIs observed in this population appears to have a long residual period before risk returns to baseline levels.