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## **One-year clinical outcome in patients with acute coronary syndrome treated with concomitant use of clopidogrel and proton pump inhibitors: results from a regional cohort study.**

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Source

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### **Abstract**

#### **OBJECTIVES:**

We sought to compare the 1-year risk of re-hospitalization for acute coronary syndrome (ACS) between patients taking clopidogrel with proton pump inhibitors (PPIs) vs. clopidogrel without PPIs.

#### **MATERIALS AND METHODS:**

We conducted a retrospective cohort study among 3896 patients with ACS, at low risk for gastrointestinal bleeding, discharged from all hospitals of the Emilia-Romagna region of Italy during the period January-August 2008. Patients' consumption of clopidogrel and PPIs at hospital discharge and follow-up was based on pharmacy refill data. Of these 3896 patients, 90% (n = 3519) were prescribed PPIs at hospital discharge and/or at some time during follow-up.

#### **RESULTS:**

At 1-year follow-up, hospitalization for ACS occurred in 15% of patients taking clopidogrel with PPIs vs. 3.4% of those taking clopidogrel without PPIs ( $P < 0.001$ ). No difference in terms of all-cause mortality could be detected between the two groups. At multivariate regression analysis with PPI use as a time-varying covariate, periods of use of clopidogrel with PPIs were associated, at 1-year follow-up, with a significantly higher risk of hospitalization for ACS (hazard ratio 1.29,  $P = 0.025$ ). Notably, this event occurred mostly in patients who underwent revascularization during the index hospitalization (n = 3045, hazard ratio 1.52,  $P = 0.004$ ). No significant effect of PPI prescription could be observed in terms of 1-year all-cause mortality and revascularization.

#### **CONCLUSION:**

This study suggests the hypothesis that a concomitant use of clopidogrel and PPIs in patients with ACS, at low risk for gastrointestinal bleeding, having mostly undergone coronary revascularization, is associated with an approximately 30% higher risk of nonfatal hospitalization for ACS.