Abstract


Proton pump inhibitors: potential adverse effects.

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PURPOSE OF REVIEW: This review summarizes adverse effects of potential proton pump inhibitors (PPIs), including nutritional deficiencies (B12 and magnesium), rebound acid hypersecretion, acute interstitial nephritis, gastric carcinoid tumor, cardiovascular risk with clopidogrel and PPI coprescription, bone fractures, enteric infections and pneumonia. An epidemiologic framework is applied to assess clinical relevance and reinforce best practice recommendations.

RECENT FINDINGS: The evidence for PPI adverse events is limited by the absence of Level 1 (randomized controlled trial) studies. The best evidence supports Clostridium difficile and bone fractures in susceptible populations. A substantial reduction in gastrointestinal bleeding risk without increase in cardiovascular events was observed in the COGENT trial when clopidogrel was coprescribed with omeprazole. The risk of pneumonia is inconsistent, and although acute interstitial nephritis, nutritional deficiencies (including B12 and hypomagnesemia), gastric carcinoid and rebound hyperacidity are biologically plausible, studies have failed to demonstrate supportive clinical relevance.

SUMMARY: Prescribe PPI for robust indications only. Strong data supporting risk of adverse events are lacking; however, exercise caution in the elderly and in patients with other risk factors for bone fractures or C. difficile infection.

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