Peptic Ulcer Prophylaxis in Patients on Long Term Aspirin: An Audit in a Hospital-based Family Medicine Clinic

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Introduction
Aspirin, one of the non-steroidal anti-inflammatory drugs (NSAIDs), is widely prescribed in primary care settings for its antiplatelet effect on cardiovascular and cerebrovascular event prevention. However, NSAIDs are one of the most important causes of peptic ulcer disease. A number of risk factors for NSAID-related gastrointestinal (GI) complications are recognized, including old age, high dose or multiple NSAIDs, previous history of peptic ulcer (PU), and concurrent use of corticosteroids or anticoagulants. A number of practice guidelines recommend prophylactic regimen to NSAID and Aspirin users with higher ulcer risk. The ACG Practice Guidelines suggest gastroprotective prophylaxis by proton-pump inhibitor (PPI), misoprostol, or, with less effectiveness, high dose histamine type-2 receptor antagonists (H2RAs) e.g. Famotidine 40mg BD, for patients with moderate to high GI risk. A local cross-sectional study on NSAID-associated ulcer bleeding found that a substantial proportion of bleeding episodes in many high-risk NSAID or Aspirin users might be preventable with better adherence to gastroprotective prophylaxis.

Objectives
To review the prescription of peptic ulcer prophylaxis to patients on long term Aspirin and assess their potential GI risks. To look for improvement strategies to overcome the performance gap.

Methodology
A retrospective review of patients on long term Aspirin followed up in our Family Medicine Clinic in the period of May to August 2014 was conducted. Their
demographics, indication for Aspirin use, history of PU & related complications, and PU prophylactic regimen prescribed if any were examined.

**Result**

There were in total 472 patients on Aspirin within the study period. 134 cases were selected for review by random sampling. Three cases were excluded as they were not regularly followed up in our clinic. 82.4% of the patients belonged to old age group (=>65 years). About half of them (50.4%) were on Aspirin for history of ischemic stroke or transient ischemic attack. Another 39% of them had history of ischemic heart disease or myocardial infarction. Among these old-age Aspirin users, most of them were not on recommended prophylactic regimen, with more than half of them (53%) on low dose Famotidine (20-40mg daily), and less than 7% of them on antacids (e.g. Triact). Around 30% of them were not on PU prophylaxis. Only 3 patients (2.8%) were on high dose Famotidine (40mg BD) and 4 (3.7%) were on PPI. Four out of all studied subjects had history of uncomplicated peptic ulcers, and one of them had history of complicated peptic ulcer. They were all above 65 years old. Only one of them was on PPI (Pantoloc 20mg daily), while the remaining subjects were on low dose Famotidine. Over 90% of our old-age Aspirin users (at least with moderate GI risk) and most of those who had history of uncomplicated or complicated peptic ulcer (high-GI risk) were not put on prophylactic regimen with proven effectiveness. Standardization of prescription guideline on gastroprotective regimen and better adherence to drug use at primary care level should help reducing occurrence of NSAID-induced peptic ulcer and its related complications, reducing mortality, as well as saving expenditure in tertiary care.