

# An Evaluation of Gastrointestinal Prophylaxis in Elderly Patients on Aspirin Therapy

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## Introduction

Aspirin is beneficial and widely used for the secondary prevention of cardiovascular diseases due to its anti-thrombotic effects. Unfortunately, it also carries an increased risk for gastrointestinal (GI) injury, especially in patients of advanced age. It has been reported that patients  $\geq 75$  years are at a substantial risk of GI bleeding when taking aspirin. Proton pump inhibitor (PPI) therapy was found to decrease this risk, however, safety concerns limit its use in practice.

## Aim and Objectives

To evaluate the appropriate prescribing of GI prophylaxis in elderly patients taking aspirin;

- To determine the proportion of elderly ( $\geq 75$ ) aspirin-users that are on GI prophylaxis
- To assess the appropriateness of GI prophylaxis prescribed according to evidence found in literature
- To assess whether increased GI bleeding risk due to comorbidities and concomitant drugs influences the prescribing of GI prophylaxis.

## Methods

- This retrospective study was conducted at North Middlesex University Hospital (NMUH) London
- All elderly inpatients ( $\geq 75$  years) that were discharged from hospital between March 2018 and June 2018, from NMUH, on aspirin 75mg or aspirin 300mg, were included in this study
- Data on the patient's gender, age, discharge ward speciality, GI prophylactic agent, and additional GI bleeding risks (history of peptic ulcer disease, *H.Pylori* infection, concomitant drugs which cause GI bleeding) was collected from discharge summaries
- The data was analysed using differential statistics on IBM SPSS Statistics Software v25.

## Results

154 patients were included in this study.  
79.2% of the patients were co-prescribed GI prophylaxis (Figure 1).

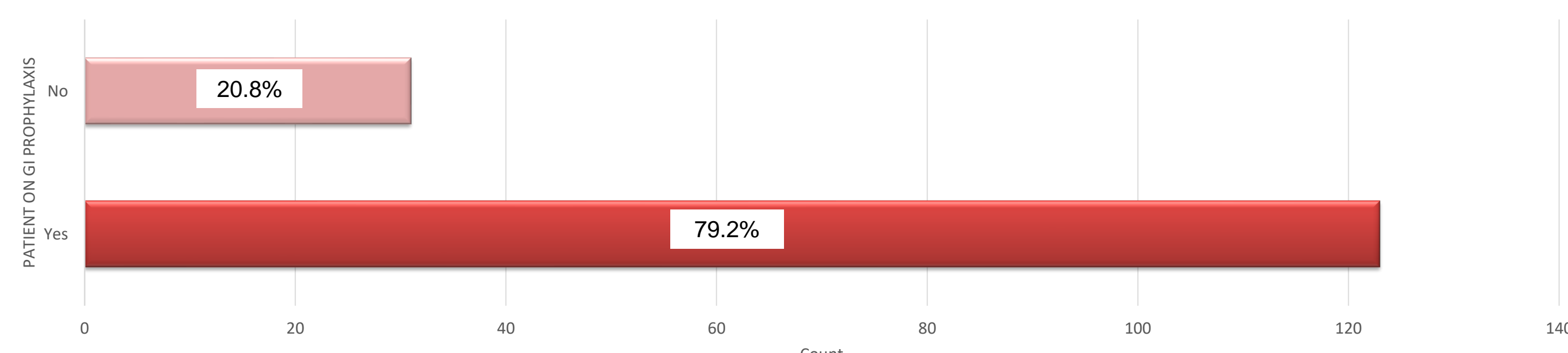


Figure 1: Number of patients on GI prophylaxis

The patients were discharged on:

- Lansoprazole 15mg OD or 30mg OD (84.4%)
- Ranitidine 150mg BD (11.5%)
- Lansoprazole 30mg OD and Ranitidine 300mg ON (4.1%) (Figure 2).

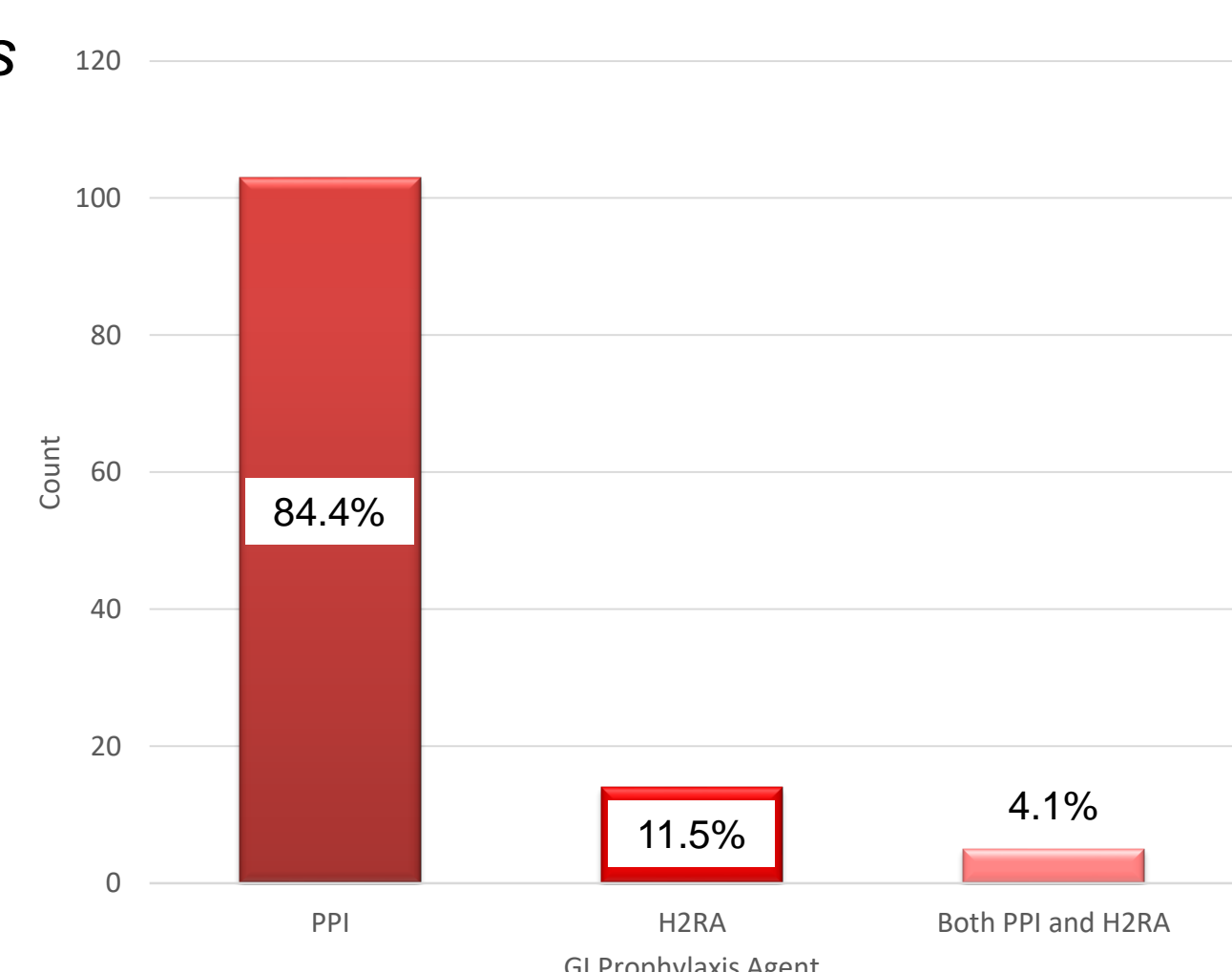


Figure 2: GI Prophylaxis on Discharge

86.5% of patients who had comorbidities or were taking concomitant medication that could increase their risk of GI bleeding were discharged on GI prophylaxis (Figure 3).

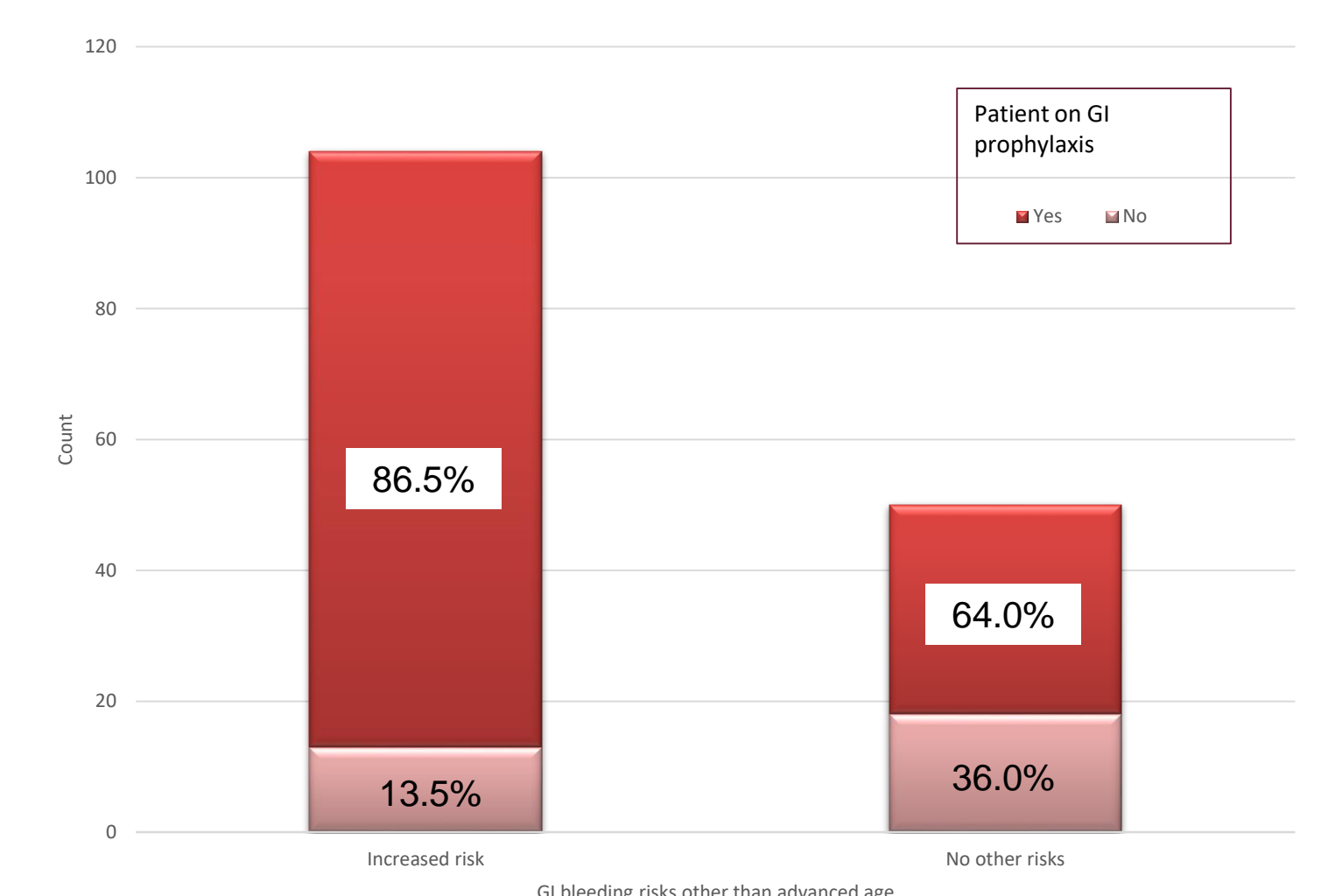


Figure 3: Patients on GI prophylaxis with increased GI bleeding risk due to comorbidities or drugs

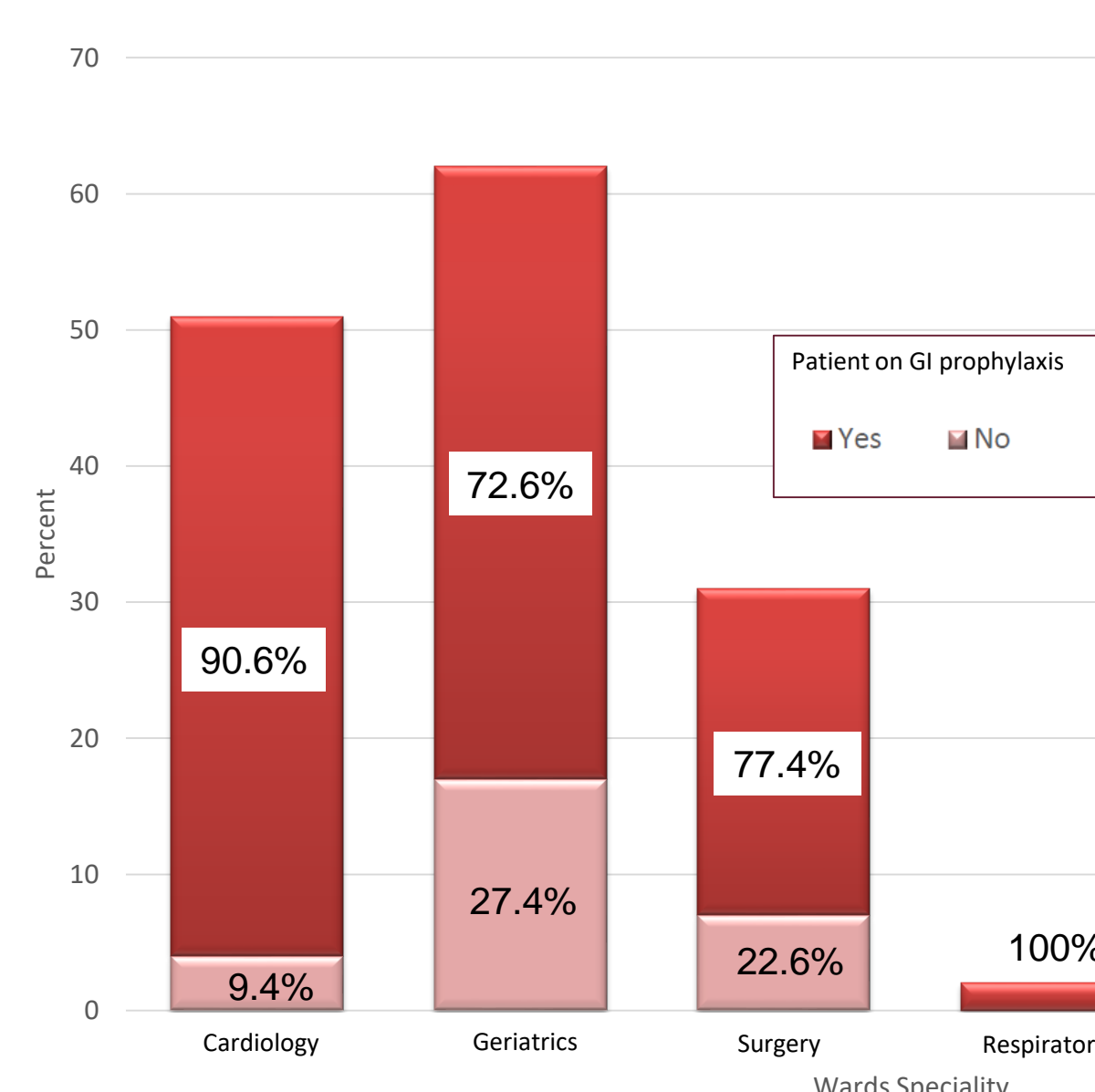


Figure 4: Percentage of patients discharged on GI prophylaxis according to ward speciality

The cardiac and the geriatric wards discharged the highest number of elderly patients on aspirin. It was found that the cardiac wards discharged more patients on GI prophylaxis (90.6%) than the geriatric wards (72.6%) (Figure 4).

## Conclusions

In conclusion, this study has shown that even though a high proportion of elderly patients ( $\geq 75$ ) were prescribed GI prophylaxis, there was still some inconsistency in prescribing patterns. Some elderly patients with a high risk of GI bleeding did not have any GI prophylaxis, while those with no additional GI bleeding risks did. This study also found that prescribing patterns differed between different specialities. It is therefore beneficial to develop guidelines for the hospital to follow and to raise awareness among prescribers and clinical pharmacists regarding the use of appropriate GI prophylaxis in elderly patients on aspirin therapy.

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