TACKLING OVERPRESCRIBING; WHAT ABOUT THE HABITUAL OFFENDER, PPI?

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Background

Overprescribing is a serious problem in health systems internationally and can lead to preventable hospital assessments and admissions, even premature deaths[1]. Polypharmacy is ever increasing within the elderly population, with 22% of those over 65 prescribed five or more drugs[2].

Proton pump inhibitors (PPIs) are commonly prescribed in older people. They are associated with risk of C difficile infection, hypomagnesemia, osteoporosis, hypergastrinaemia, and are considered falls risk increasing drugs (FRID)[3]. Unfortunately, there isn't a guideline which crystallizes the various indications of PPIs.

Method

303 discharges were screened from 2 acute geriatric wards between 01/10/2020 and 31/12/2020.

After exclusions (34 deaths, 5 readmissions), 264 notes were reviewed.

Those with a PPI mentioned on their discharge summaries were audited against both NICE dyspepsia guidelines[4] and our Trust Gastroprotection guideline[5], assessing whether long term use was advocated.

Additional information was obtained from our hospital systems including digital health records (DHR). Clinical frailty scores (CFS) were calculated from documented collateral histories.

Results

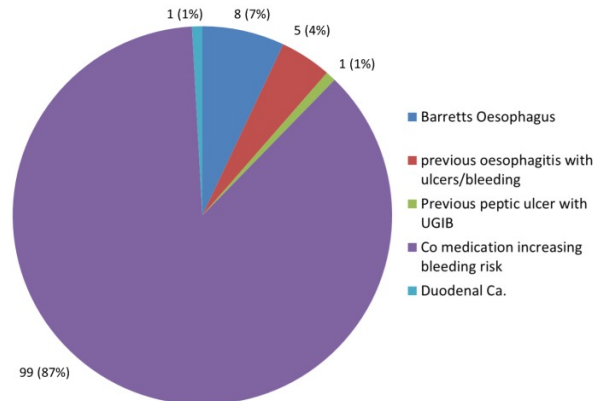153/264(58%) patients had PPIs on their discharge documentation.

146 (95%) had polypharmacy.

140 (92%) had a CFS ≥5.

More PPIs were commenced (18) than discontinued (16).

Results Continued.

Against NICE dyspepsia guidelines, 107/153(70%) patients met the criteria for long term prescription of PPIs.

Pie chart: 1 (1%), 8 (7%), 5 (4%), 1 (1%), 99 (87%)
- Barretts Oesophagus
- previous oesophagitis with ulcers/bleeding
- Previous peptic ulcer with UGIB
- Co medication increasing bleeding risk
- Duodenal Ca.

81/153 (53%) patients had a PPI prescribed due to co-prescription of anticoagulation or antiplatelet therapy. .However 37/81 (46%) did not fulfil our trust criteria for co-prescription.
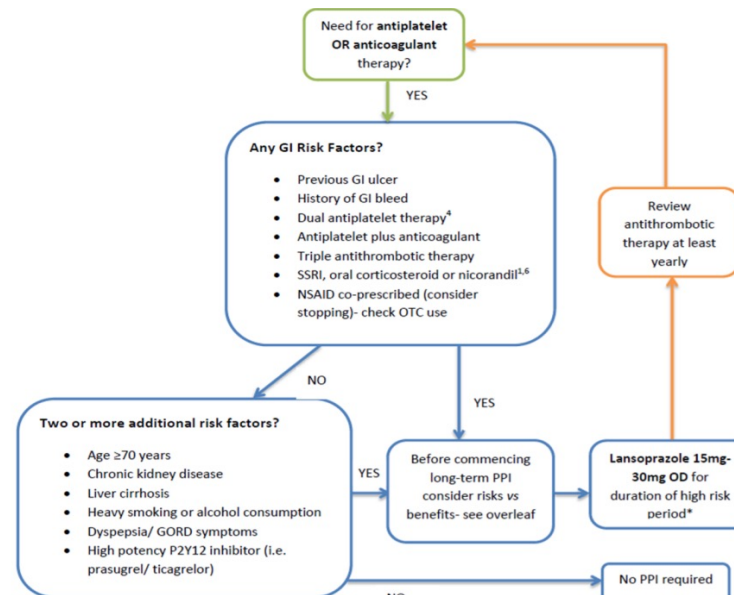
Discussion

PPIs have multiple indications and are consequently complex to audit with lack of clear, universal guidance. The two main indications discussed are notably prevalent in the frail population. Although there is an emerging movement to deprescribe or de-escalate treatment, almost half of patients remained on a PPI without clear indication. As a result of the audit, a guideline has been developed for PPI use in the frail population; our criteria for long term use being:

1	Endoscopically confirmed severe oesophagitis
2	Barrett's oesophagus
3	Oesophageal stricture or dilatation
4	For co-medications PPI s are only required LT if patients require an antiplatelet or anticoagulant long term PLUS 1 or more of the following: History of previous GI bleed/GI ulcer/GORD or dyspepsia symptoms/ underlying CKD with S Cr>200 or on dialysis /liver cirrhosis/heavy smoking /alcohol/SSRIs/Nicorandil /steroids

Conclusion

PPI usage is prevalent in older people and often continued without a valid indication which could result in preventable harm in an already vulnerable cohort. There is a need to actively deprescribe PPIs within all healthcare settings. Our findings and subsequent guideline has been disseminated amongst relevant departments and will be re-audited in six months time.

REFERENCES
1. Good for you, good for us, good for everybody. Published 22/9/21.
2. Cantley A, Glyn T, Barton N. Polypharmacy in the Elderly. InnovAiT 2016;9(2): 69–77
3. Seppala L, Van der Velde N, Masud T, Blain H, Petrovic M et al. EuGMS Task and Finish group on Fall-Risk-Increasing Drugs (FRIDs): Position on Knowledge Dissemination, Management, and Future. Drugs & Aging 2019; 36:299–307
4. Gastro-oesophageal reflux disease and dyspepsia in adults: investigation and management. www.nice.org.uk/guidance/cg184 [Accessed 31 January 2022].
5. Nottingham University Hospitals NHS Trust... Initiation of Gastroprotection in patients prescribed Antithrombotic Agents Quick Reference Guide.