Proton Pump Inhibitors (PPIs): long term safety and gastroprotection

Medicines optimisation projects in this area focus on reducing PPI prescribing for cost and safety reasons by reviewing the continued need and stepping-down or deprescribing where appropriate in-line with current guidance. Cost savings are available by using lower cost PPIs in preference to more costly brands.

Key recommendations

- Offer lifestyle advice to all people to manage dyspepsia, including advice on healthy eating, weight reduction, smoking cessation, and avoiding factors associated with dyspepsia.
- Review medications for possible causes of dyspepsia. These include calcium antagonists, nitrates, theophyllines, bisphosphonates, corticosteroids and non-steroidal anti-inflammatory drugs (NSAIDs).
- PPIs should only be prescribed when needed for a recognised indication and for an appropriate duration at the lowest effective dose, taking into account the person's preference and clinical circumstances and the acquisition cost of the PPI. Histamine H2-receptor antagonist (H2RA) therapy should be offered instead of a PPI if there is an inadequate response to the PPI(s).
- The use of short courses, as-needed doses and self-treatment with antacid and/or alginate therapy should be first line unless there is a recognised indication for long-term PPI treatment e.g. in Barrett's oesophagus, prevention of NSAID-associated ulcers, chronic NSAID users with bleeding risk, history of bleeding GI ulcers or severe oesophagitis complicated by past strictures, ulcers, or haemorrhage.
- All PPIs should be reviewed between four and eight weeks after starting treatment.
- When defined short-term courses are prescribed, the person's symptoms should be reviewed on course completion and the PPI discontinued/ reduced if symptoms have resolved.
- Due to adverse effects, people who need long-term PPI therapy should be offered an annual review and encouraged to try stepping down PPI therapy to the lowest dose needed to control symptoms, treatment on an 'as needed' basis, self-treatment with antacid and/or alginate therapy either prescribed or purchased over-the-counter.
- Medication that requires gastroprotection should be reviewed regularly. If that medication is stopped then the PPI should be deprescribed too, if this is the only indication for prescribing.

Costs and savings

- Nationally £128 million is spent annually on PPIs (NHSBSA Feb-Apr 2020). Differences between PPIs in terms of clinical efficacy and safety are minimal. No PPI is more effective than another at equivalent doses, and therefore NICE recommends using the least expensive PPI.[1] Generic omeprazole capsules and generic lansoprazole capsules are the preferred PPI options. Generic esomeprazole 20mg capsules and pantoprazole 20mg tablets are alternatives if omeprazole or lansoprazole are unsuitable. The brands, Nexium® (esomeprazole), Losec® capsules (omeprazole) and Losec® MUPS (omeprazole) are non-preferred options, due to their comparatively high cost.[2-3] A licensed omeprazole powder for oral suspension has recently become available in strengths of 2mg/ml and 4mg/ml, but it is costly compared to other formulations at £332.92 for 28 days treatment (at a dose of 20mg daily).[4]
- If prescribing of PPIs reduced by 30% through deprescribing or an appropriate switch to self care, **this could save £38.4 million in England and Wales over 12 months (NHSBSA Feb-April 2020). This equates to £61,933 per 100,000 patients.**
- Prescribing the least costly PPIs in preference to the more costly brands, Nexium® (esomeprazole), Losec® capsules (omeprazole) and Losec® MUPS (omeprazole) **could save £17.3 million in England and Wales over 12 months (NHSBSA Feb-April 2020). This equates to £27,804 per 100,000 patients.**

References

1. NICE. Gastro-oesophageal reflux disease and dyspepsia in adults: investigation and management. Clinical Guideline [CG184]. Published September 2014, last updated 18 October 2019. https://www.nice.org.uk/guidance/cg184
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3. NHS Prescription Services. Drug Tariff July 2020. Available at www.nhsbsa.nhs.uk/pharmacies-gp-practices-and-appliance-contractors/drug-tariff
4. C+D Data. http://www.cddata.co.uk/homesearch Accessed 03/07/20.
5. Summaries of Product Characteristics - Omeprazole 2mg/ml and 4mg/ml, Powder for Oral Suspension. Rosemont Pharmaceuticals Limited. Date of revision of the text 1 October 2019. www.medicines.org.uk

Additional resources available	Bulletin & Implementation resources	https://www.prescqipp.info/our-resources/bulletins/bulletin-267-ppis-long-term-safety-and-gastroprotection/
	Data pack	https://pdata.uk/#/views/B267_PPIslongtermsafetyandgastroprotection/FrontPage?:iid=1

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