Proton Pump Inhibitors (PPIs) and Older Adults

Rebecca Kant, DO

Why is it Important to Talk About PPIs?

⇒ PPIs were first introduced in the mid-1980s
⇒ They are a very common medication- 8-10% of ambulatory adults have been prescribed a PPI in the past 30 days
⇒ People over the age of 60 are 3.5x more likely to be using a PPI than people under 60
⇒ >1/3 of all PPI users have no documented indication and almost ⅔ of all PPI users have no documented response to therapy

Safety Concerns with Long-Term Use of PPIs

⇒ Multiple safety concerns, however few of these have been supported by consistent data showing a causal relationship
⇒ However, given the number of possible risks that may come with long-term use of PPIs, it is essential to consider whether your patient truly needs this medication

Some of the most prevalent safety concerns include:

- Increased risk of C.diff infections
- CKD and AIN
- Increased risk of fractures
- Vit B12 deficiency
- Drug-induced lupus
- Hypomagnesemia
- Pneumonia
- Dementia (however newer studies have not found an association between PPIs and worsening cognitive function)
- Increase in all-cause mortality (increased with duration of use)
**Drug Interactions to be Aware of When Using PPIs:**

- do not use Omeprazole in someone on Plavix
- certain HIV medications (protease inhibitors)
- Methotrexate (may decrease methotrexate elimination)

Despite these risks, there are times when patients **should** be continued on PPIs long-term:

**Definite Indications for Long-Term Use**

- Treatment of erosive esophagitis and prevention of relapse (risk of relapse is 72% if PPI is stopped in these individuals)
- Chronic users of NSAIDs/ASA who have increased RF (concurrent use of anti-coagulation/anti-platelet medications/steroids, **age >70**, prior hx of PUD, or multiple severe medical comorbidities)
- Prevention of progression of Barrett’s esophagus
- ZE Syndrome
- Eradication of H. Pylori infection

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**Goal:** The lowest dose of PPI for the shortest duration of time.

**How do we reach this Goal?**

**PPI Deprescribing**

- If a patient has been on a PPI for ≥6 months and is **not** on them for one of the reasons above, should consider a taper
- Start by dose reduction if on a higher dose
- No proven best way to taper off of this medication- can trial ½ dose x 1-2 weeks, then off
- Can also trial on-demand therapy (only use prn rather than scheduled)
- Do **not** suddenly discontinue a PPI as patients can experience rebound gastric acid hypersecretion- can trial adding H2RAs while tapering to help with this
- Make patients aware that these rebound symptoms may happen, especially within the first week of stopping this medication, and encourage them not to immediately restart their PPI when these occur
The Bottom Line

- Given the current uncertainty regarding safety concerns with long-term use of PPIs, providers should attempt to have their patients taper off these medications if not on them for one of the definite indications listed above.

- Do not suddenly discontinue a PPI given the risk of rebound gastric acid hypersecretion; taper slowly, make lifestyle modifications, and trial H2RAs during this process to help.

References

* UpToDate: Proton pump inhibitors: Overview of use and adverse effects in the treatment of acid related disorders. Lit review current through Jan 2019.