When was the last time you stopped a PPI?

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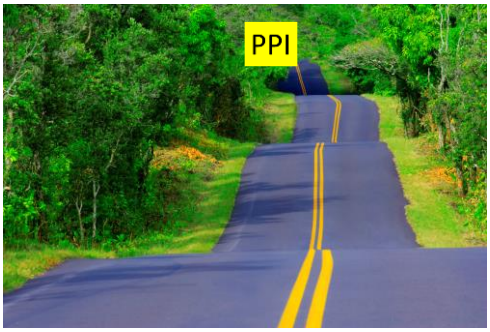
Faculty/Presenter Disclosure Slide

- Faculty: Lori M. Stead
- Relationships with commercial interests:
  - Honoraria: Shire Canada
  - Grants: Janssen Canada

Objectives

- Discuss harms associated with PPI usage
- Review indications for PPI
- When to stop PPIs



What's the harm?

- B12 deficiency
  - Elderly institutionalized patients
- Susceptibility to enteric infections
  - *Salmonella*, *Campylobacter jejuni*, *Clostridium difficile*

Sheen, N, Triadafilopoulos, G. Dig Dis Sci 2011;56: 931-950
Bavishi C, Dupont, HL. Aliment Pharmacol Ther 2011; 34: 1269-1281

Fractures

- Retrospective data only
- Mechanism
  - ? Reduction in gastric acid → decreased release of ionized calcium from calcium salts and protein bound calcium
  - ? Inhibition of osteoclast-mediated bone resorption

Fractures

- Manitoba Bone Mineral Density Database
  - Cases with OP at hip or lumbar spine matched to 3 normal controls
  - PPI use over preceding 5 years not associated wit OP
  - Conclusion: association of PPI use and hip fracture probably related to factors independant of OP

Community Acquired Pneumonia

- Mixed results
- Analysis of RCT data fails to demonstrate increased risk among patients using PPIs
- ? Increased risk in short term use

C. difficile-associated diarrhea

- 2 Metaanalyses
- RR CDAD in PPI treated patients 1.69
- Pooled Odds ratio 1.74
- No information on duration of PPI use
- Significant heterogeneity

C. difficile-associated diarrhea

- Retrospective studies show PPIs to be a risk factor for incident and recurrent disease
  - Underscores *judicious* use of PPIs

Kim JW et al. World J Gastroenterol 2010; 16(28): 3573-3577
Linsky et al. Arch Int Med 2010; 170(9): 772-778

INDICATIONS FOR PPI

Indications for PPI

- Treatment of peptic ulcer disease
- GERD
  - Peptic strictures, Barrett's esophagus, erosive esophagitis
- Functional dyspepsia*

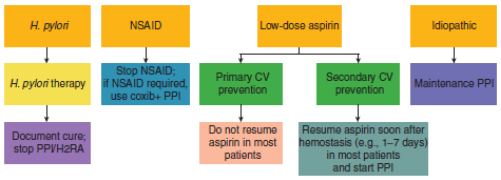
Laine, L and Jensen, DM. Am J Gastroenterol 2012; 107: 345-360
Katz, PO et al. Am J Gastroenterol 2013; 108: 308-328
Van Zanten S, Flook, N et al. CMAJ 2000; 162(12) Suppl

Peptic Ulcer Disease

- Treat with PPI po x 8 weeks
- HP + → treat (triple therapy)
- Ensure eradication with UBT
- Negative test in acute setting should be repeated

NSAID and ASA Related Ulcers

- Carefully review need for these agents
  - Will likely require long term PPI



Laine, L and Jensen, DM. Am J Gastroenterol 2012; 107: 345-360

GERD

- Typical symptoms → empiric trial PPI 8 weeks
  - Poor response? Ensure proper dosing, ambulatory pH/impedance monitoring
- Atypical symptoms
  - Ambulatory testing FIRST preferred

GERD

- Negative ambulatory testing → GERD unlikely

- Atypical symptoms
  - ENT, pulmonary, allergy referral

GERD

- Uncomplicated
  - Treat with PPI x 8 weeks
  - Can use on demand or symptoms driven treatment
  - H2RA can be used for maintenance
- Complicated
  - Erosive esophagitis, peptic stricture, Barrett's
    - Maintenance PPI

Functional Heartburn

- All testing negative
- Poor response to PPIs
- Consider neuromodulators
  - Amitriptyline, gabapentin, pregabalin

Dyspepsia

- Empiric PPI x 4 weeks
  - Success →
  - Retreat prn

- Partial response → treat for additional 4 weeks
- Failure →

Refer

How do you stop a PPI?

- Rebound acid reflux
- Step down approach
  - Bid dosing? Decrease to OD x 2 weeks, then QOD
  - Individualize approach

Summary

- PPIs not without risk
- Carefully consider indication
- On demand or symptom based approach safe and effective for GERD
- Ulcer disease → risk factor reduction
- Don't be afraid to


THANK
YOU
FOR
YOUR
ATTENTION