Clinical Pearl 21/04/22

Each week we will aim to bring out a concise email that provides 4-5 key pieces of information addressing a specific issue in clinical therapeutics.

This week: Proton Pump Inhibitors (PPI) – Should They Stay, or Should They Go?

Ha Nguyen – Clinical Pharmacist

We are often asked whether PPIs should be continued or ceased.

This week's Clinical Pearl investigates reasons in favour and against deprescribing.

In favour of deprescribing

- Modification of lifestyle factors (avoiding smoking, reducing alcohol, caffeine, fat and chocolate consumption, weight loss) that independently improve GORD symptoms.
- Disappearance of GORD symptoms after an initial treatment period of 4-8 weeks with a PPI.
- If potential ulcerogenic medications are ceased (e.g., aspirin, NSAIDs, corticosteroids).
- People with non-erosive oesophagitis or symptoms for which no specific acid-related diagnosis has been made.

Against deprescribing

- People with a previous history of GI bleeding are at very high risk of subsequent bleeding. This risk is exacerbated by some medications (antiplatelets, anticoagulants, NSAIDs, corticosteroids).
- People with a high GI bleeding risk, who have not had a previous bleeding episode, may benefit from prophylactic use of low dose PPIs.
    - Taking long term NSAIDs
    - Taking dual antiplatelet therapy
    - Take anticoagulants
- Established oesophagitis or other acid-mediated oesophageal damage (e.g., Barrett's Oesophagus) may require long-term treatment on specialist advice.
- Ongoing, uncontrolled GORD symptoms.

If PPIs are to be continued it is important to be aware of potential long term side effects:

- Hypomagnesaemia
- Clostridium difficile infection
- Decreased serum B12 concentration
- Pneumonia
- Fractures
- Iron deficiency

*****What is the clinical relevance of the clopidogrel/PPI interaction? *****

Proton pump inhibitors are inhibitors of CYP2C19. PPIs may inhibit activation of clopidogrel to its active metabolite via CYP2C19 leading to decreased serum concentrations of the active metabolite and potentially reducing the antiplatelet effect of clopidogrel.

Omeprazole and esomeprazole are considered the most potent inhibitors of CYP2C19 while rabeprazole and pantoprazole have the weakest inhibitory effect. Hence, it is important to avoid omeprazole/esomeprazole when recommending a PPI for people with high GI bleeding risk.

Reference:

https://www.primaryhealthtas.com.au/wp-content/uploads/2018/09/A-Guide-to-Deprescribing-Proton-Pump-Inhibitors.pdf

https://dig.pharmacy.uic.edu/faqs/2019-2/october-2019-faqs/what-is-the-clinical-relevance-of-the-clopidogrel-proton-pump-inhibitor-ppi-interaction/

Please consider these issues when preparing or interpreting RMMR reports or education sessions. Contributions of content or suggested topics are welcome and should be sent directly to natalie@wardmm.com.au