**BACKGROUND**

- The Canadian Deprescribing Network published an evidence-based algorithm to help clinicians reduce the inappropriate use of proton-pump inhibitors (PPI). Application of this algorithm in stable hospitalized patients has not been studied previously.

- At North York General Hospital, the Reactive Unit (RU) is a 33-bed inpatient unit for stable, alternative level of care (ALC) patients who no longer require acute hospital services. The interprofessional (IP) healthcare team will work closely with patients and their family during this time of transition to the most appropriate discharge destination. As part of the IP team, a clinical pharmacist is assigned to this unit to provide comprehensive pharmaceutical care to this group of patients.

**OBJECTIVES**

- To evaluate the feasibility of deprescribing PPI in patients designated ALC at a community academic hospital by applying the deprescribing algorithm.

- To identify enablers or barriers to the process of deprescribing PPI in an acute care setting.

- To examine the effects after deprescribing PPI therapy in patients during their hospital stay.

**METHODS (continued)**

- The pharmacist screened all patients in or transferred to RU between March 1st and May 31st, 2016 for active PPI orders.

- The health record for each PPI user was reviewed by the pharmacist to determine the appropriateness of the duration of treatment and whether deprescribing was warranted.

- The pharmacist along with IP team members monitored all patients who had their PPI deprescribed, for relapse of symptoms or if PPI had to be resumed. Follow up duration is until the time of discharge or until August 31st, 2016, whichever date came first.

- The proportion of patients who had their PPI discontinued or reduced at the end of the follow-up period was calculated.

**RESULTS**

- During the 3-month study period, 72 patients were screened in RU. The mean age of the patients was 80.69 ± 10.5 years. The PPI indications of the 28 patients who were on therapy and whether deprescribing was completed are summarized in Figure 1.

**DISCUSSIONS (continued)**

- Benefits of incorporating a deprescribing algorithm as part of medication review in ALC patients includes:
  - Systematically enabled an evidence-based discussion on reducing polypharmacy between pharmacists and physicians.
  - Raised awareness for patients and families and the IP health team on the possible risks associated with prolonged PPI use.
  - Provided a platform for constructive feedback to improve on future process of PPI deprescribing.

- Challenges revealed in the process of deprescribing:
  - Identifying the indication of PPI could be time-consuming and all times, necessitating interviews of patients’ caregivers and their primary physicians.
  - Although the algorithm suggests using ‘loss of appetite,’ ‘weight loss’ or ‘agitation’ as monitoring parameters for cognitively impaired or non- verbal patients, these signs/symptoms were felt to be too non-specific and impede the decision to deprescribe.

- Gaps in the guidelines regarding the use of PPI for gastroprotection were revealed. These include patients with an enteral feeding tube, or those who are all increased risk of GI hemorrhage due to concurrent antithrombotic use.

**CONCLUSION**

- Hospital pharmacist can play a significant role in reducing inappropriate use of PPI in stable hospitalized patients by applying the PPI deprescribing algorithm.

- Additional direction to help guide deprescribing PPI in patients who require gastroprotection in the future will be useful.

- Need to communicate more evidence-based information to patients on prolonged use of PPI in order to facilitate shared decision making in deprescribing.

**APPLYING THE PROTON PUMP INHIBITOR DEPRESCRIBING ALGORITHM IN STABLE PATIENTS IN A COMMUNITY HOSPITAL**

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**APPLICATION OF THIS ALGORITHM**

**OBJECTIVES**

- To identify enablers or barriers to the process of deprescribing PPI in an acute care setting.

- To examine the effects after deprescribing PPI therapy in patients during their hospital stay.

**METHODS**

- The pharmacist screened all patients in or transferred to RU between March 1st and May 31st, 2016 for active PPI orders.

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- The proportion of patients who had their PPI discontinued or reduced at the end of the follow-up period was calculated.

**RESULTS**

- By the end of the follow-up period, 2 patients were resumed on PPI therapy. One was due to patients’ cognitive impairment, while the other was due to family’s request.

- The mean duration of follow up was 79.3 days. Details regarding the interventions and outcome for deprescribing PPI were included as part of the patients’ discharge package.

**DISCUSSIONS**

- Limitations of this study include:
  - Population bias (mean age >70 years old with impaired cognition)
  - Small sample size
  - Short duration of follow-up time
  - Long-term sustainability of deprescribing and evaluation of outcomes beyond the discharge time were not included in this pilot project due to the limitation in resources.

**ACKNOWLEDGEMENTS**

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**REFERENCES**


