

Use of Proton Pump Inhibitors in paediatric home Parenteral Nutrition patients

Background and introduction

Proton pump inhibitors have a many clinical uses, eg. GORD (1) They also however have a variety of side effects, some of which can be very serious, eg. small bacterial overgrowth (2). The aim of this work is to improve patient safety and promote appropriate prescribing of medicines. The objective of this work is to identify the indication for the prescribed PPI and ensure it is still valid and the dosing regimen is appropriate.

Methods

Twenty-eight current paediatric home PN patients were identified. The outpatient clinic letters were reviewed to assess if a PPI was prescribed. The following details were recorded: medicine, indication, dose, frequency, length of prescription, as well as additional demographic data. A virtual meeting with the clinicians who look after those patients was organised with the aim to discuss possible interventions.

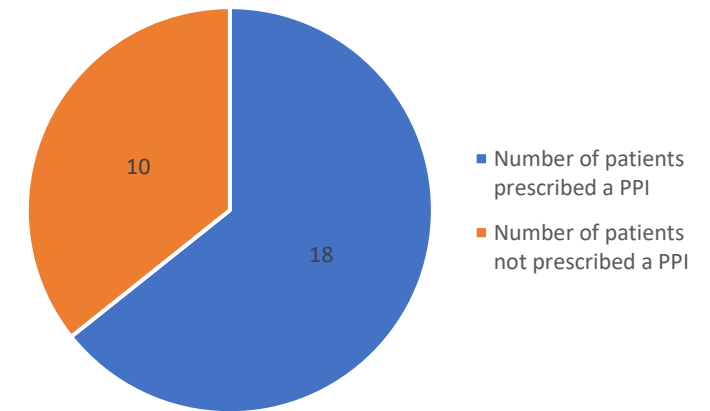
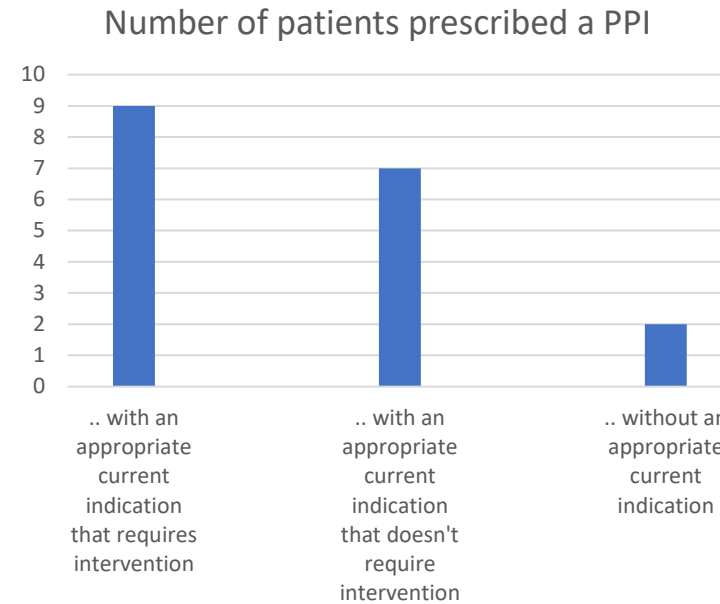
Discussion and conclusion

The objective of this project is met as eleven patients were identified as suitable for an intervention, whilst seven patients required no changes to treatment. Further work has been identified in order to achieve the project's aim. It will take an estimated nine months to gain consent from patients' parents to make changes to their treatments. Parental anxiety to changing drug treatment was identified as a primary challenge. Educating parents about the benefits of deprescribing PPIs is an objective for future work. In order to review the progress of the patients, a follow-up audit will be performed.

Based on the findings of this work, prescribing of PPIs in the patient population studied, is largely appropriate even without a Trust guideline available to assist prescribers. Creating a Trust guideline is another objective for future work because it would make reviewing whether patients are prescribed appropriate doses and regimens for their indications easier (3), and hopefully be able to assist prescribing more cost-effective alternatives.

References

1. Robert M. Ward, Gregory L. Kearns. Proton Pump Inhibitors in Pediatrics. 15(2):119–31.
2. David Avelar Rodriguez, Paul MacDaragh Ryan, Erick Manuel Toro Monjaraz, Jaime Alfonso Ramirez Mayans, Eamonn Martin Quigley. Small Intestinal Bacterial Overgrowth in Children: A State-Of-The-Art Review. [cited 2021 Mar 18]; Available from: <https://www.frontiersin.org/articles/10.3389/fped.2019.00363/full>
3. J.M. Grimshaw, I.T. Russell. Effect of clinical guidelines on medical practice: a systematic review of rigorous evaluations - The Lancet. 1993 Nov 27;342(8883):1317–22.



Author: Viktor Georgiev

Supervisor: Karen Hartley

Location: The Parenteral Nutrition Outpatient Clinic at Newcastle Upon Tyne NHS Foundation Trust