Background and importance The use of proton pump inhibitors (PPIs) to treat acid related disorders is increasing worldwide and this raises concerns. Accumulating evidence supports the increased risk of long term adverse events, such as fractures, chronic kidney disease (KD), hypomagnesaemia, *Clostridium difficile* infections, associated with chronic PPI use.

Aim and objectives The aim of the study was to describe the results of a pharmacist intervention to improve the safety of hospitalised patients receiving treatment with PPIs.

Material and methods A prospective study was conducted from July to September 2019 in a tertiary care hospital. We included all hospitalised patients with active prescriptions for PPIs and presenting with hypomagnesaemia, KD and *C. difficile* associated diarrhoea. In these cases, a message containing a safety note from the 'Agencia Española de Medicamentos y Productos Sanitarios' was reflected in the electronic prescribing software application.

The following data were collected from the electronic health records: sex, age, hospital unit, adverse events associated with PPI use, pharmacist intervention acceptance (yes/no) and subsequent modification of the prescription by physicians.

Results We included 55 patients (21 women) with a mean age of 67 years (range 24–91). The main prescription units were: internal medicine (25.9%), nephrology (18.5%), haematology (11.1%), digestive (9.2%) and surgery (9.2%).

Around 70.9% of patients (n=39) presented with hypomagnesaemia, 21.8% (n=12) with KD and *C. difficile* associated diarrhoea. In these cases, a message containing a safety note from the 'Agencia Española de Medicamentos y Productos Sanitarios' was reflected in the electronic prescribing software application.

In total, 55 interventions were carried out, 16 of them (29.1%) were accepted and the treatment was modified by the physicians as follows: ranitidine was prescribed in 15 cases (instead of PPI), 13 because of hypomagnesaemia and 2 due to KD; and the PPIs posology was modified in 1 patient with KD.

Conclusion and relevance Most patients identified were hospitalised in the internal medicine unit, and hypomagnesaemia was the most common event adverse. The acceptance rates for this pharmacist intervention were moderate. It is necessary to continue with the distribution of safety notes and medication review in order to avoid potential adverse effects.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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