

Evaluation of Prescription of Cases of Gerd Acid Disorders in Patients at Kasatria Public Health Center, Pematang Siantar City

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ABSTRACT

In the treatment of cases of stomach acid disorders, single therapy is usually used, but there are some who use combination therapy. Usually the drugs used in combination therapy are given based on the severity of stomach acid disorders. From the study it was found that the profile of the use of gastric acid disorders or a combination of drugs was as follows: acid reflux drugs or a combination of many were used in patients with gastritis and dyspepsia, based on age the most widely treated drugs for stomach acid disorders or a combination were the age range of 44-45 years (28%), the administration of drugs for stomach acid disorders or combinations related to clinical symptoms was the most common being dizziness and nausea and the most used was the combination of antacids + Ranitidine + Sucralfate, the duration of administration of drugs for stomach acid disorders or combinations was in the range of less than 7 days and DRP (Potential Drug Related Problems found are interactions between Omeprazole and Diazepam, Omeprazole and Vitamin B12. There is no administration of drug doses for stomach acid disorders or combinations that exceed the doses suggested by Liberatur.

Keywords:

Stomach Acid, Patients, Public Health Center

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1. INTRODUCTION

Public Health Center is the technical implementation unit of the district/city health office which is responsible for health development in its working area. Thus the Public Health Center functions as a center for driving health-oriented development, a center for family and community empowerment as well as a first-level health center [3].

Drug is a substance or combination of materials intended for use in diagnosing, preventing, reducing, eliminating, curing disease or symptoms of disease, injury or physical and mental disorders in humans or animals and to beautify or beautify the body or other body parts. [2].

In patients with hepatic cirrhosis, the formation of connective tissue (fibrous) occurs in the liver which causes hardening of the liver. As a result the liver can not work properly. Portal hypertension is one of the clinical manifestations of hepatic cirrhosis. Portal hypertension can cause dilation of the veins which have an impact on gastrointestinal bleeding. Bleeding that causes hypoperfusion which results in decreased repair of mucosal cells so that the defense of the gastric mucosa against stomach acid and destructive factors decreases. As a result, it can damage the gastric and intestinal mucosa [8]. Whereas in patients with kidney failure there is a decrease in kidney function so that the excretion of toxic materials including urea and other nitrogenous substances decreases (uremia). These materials can trigger ulcers.

Today, there are drugs that are used to reduce excessive gastric acid secretion. Antacids with a mechanism of action neutralize stomach acid locally. H₂ receptor antagonists inhibit the action of histamine on H₂ receptors in parietal cells, where histamine regulates HCl release in the hope that HCl secretion by parietal cells decreases [9]. PPIs work to suppress stomach acid by inhibiting the proton pump mechanism which prioritizes H⁺/K⁺-ATPase inhibition in the gastric mucosa [5].

Proton Pump Inhibitors (PPI) are a class of drugs used to treat gastric acid secretion disorders such as *Gastroesophageal Reflux Disease (GERD)* and *peptic ulcers*. PPIs are widely recognized as effective in suppressing stomach acid production and as a first-line treatment for GERD and *Zollinger-Ellison Syndrome*. [7].

Formulation of the problem

Based on the background above, the problem can be formulated as follows:

- a. What is the profile of cases of stomach acid disorders at the Ksatria Health Center, Pematang Siantar City for the January-February 2021 period, including age, gender, and main diagnosis?
- b. What is the prescription pattern for cases of stomach acid disorders at the Ksatria Health Center in Pematang Siantar City for the January-February 2021 period?
- c. How rational is the prescription received by patients with stomach acid disorders at the Ksatria Health Center in Pematang Siantar City for the January - February 2021 period based on the results of a literature search?

2. METHOD

The research conducted was a retrospective study with a descriptive-descriptive design because it aims to describe a certain phenomenon in a systematic, actual, and accurate manner regarding certain characteristics or factors.

The research population used was all patients at the Ksatria Health Center in Pematangsiantar City for the January-February 2021 period. The sample in this study were all patients who used stomach acid disorders or a combination of drugs (Antacids, H2 Receptor Antagonists, Mucosa Protectors, Proton Pump Inhibitors) at the Kesatria Health Center, Pematangsiantar City for the January-February 2021 period using a sampling technique and based on time (time limited). according to the inclusion criteria. The research was conducted in the Medical Records section of the Ksatria Health Center in Pematangsiantar City with the implementation time from July to August 2021.

3. RESULTS AND DISCUSSION

Therapy profile and frequency of use of gastric acid disorder drugs or combinations

From the research data obtained, 100% (100 patients) received gastric acid disorder drug therapy or a combination with the oral route. Dosage, and dosage forms as well as dosage comparisons according to the literature on the use of gastric acid disorder drugs or combinations received by patients are presented in table IV.2. Through this table it can be seen that all administration of gastric acid disorder drugs or combinations is in accordance with the dosages listed in the literature.

Profile of length of time for gastric acid disorders or combination drugs.

In the use of stomach acid disorder drugs or combinations in patients at the Ksatria Health Center in Pematangsiantar City for the January-February 2021 period, they received therapy with a different length of time depending on the disease and the clinical effects that occurred. The data is displayed in the long time span of administration presented by table IV.3. The range of days is obtained based on the maximum time for using gastric acid disorders or a combination drug is 1 week (Martindale, 2009), so it is taken based on the time every 1 week.

Data on the duration of administration of gastric acid disorder drugs or combinations in patients is shown in table IV.3 with a span of less than 7 days, more than 7 days. From these data it can be concluded that the use of gastric acid disorder drugs or combinations according to the duration of use is appropriate. According to the literature, drugs for the class of drugs used for stomach acid disorders or combinations, especially PPIs, are used for a maximum of 4 weeks (Martindale, 2009). Prolonged long-term use of PPIs has the potential for excessive gastrin release which is a destructive factor. As much as 50-100% of gastric acid secretion increases after long-term PPI use. Meanwhile, a systematic review of the evaluation of acid hypersecretion showed that there was a rebound after 8 weeks of PPI use [12].

Assessment of Drug-Related Problems

Assessment of drug-related problems (DRP) is carried out on several issues such as dosage compliance, risk of interactions, and risks related to lab data. From the therapy given, there is a possibility of interactions between drugs for stomach acid disorders or combinations with other drugs. There are drug compounds that allow interactions to occur.

In one study, administration of a single dose of intravenous omeprazole to healthy subjects showed inhibition of the metabolism of diazepam and its derivatives. Omeprazole decreases clearance and prolongs the elimination half-life of diazepam and its derivatives [10]. In other words, Omeprazole can increase the level of diazepam in the blood, which means it increases the effectiveness of the diazepam.

4. CONCLUSION

From research studies of drug administration in patients with stomach acid disorders at the Ksatria Health Center in Pematang Siantar City for the January-February 2021 period, the following conclusions can be drawn:

1. The profile of the use of gastric acid disorder drugs or combinations is as follows:
 - a. Acid reflux drugs or combinations are widely used in gastritis and dyspepsia patients.
 - b. Based on age, those who received the most gastric acid disorder drug therapy or a combination were the age range of 44-55 years (28%).
 - c. Drugs for stomach acid disorders or combinations related to clinical symptoms, the most common being dizziness and nausea and the most widely used was the combination of antacids + ranitidine + sucralfate in 24 patients.
 - d. The duration of drug administration for stomach acid disorders or a combination is in the range of less than 7 days.
2. The potential DRP (Drug Related Problem) found is the interaction between Omeprazole and Diazepam, Omeprazole and Vitamin B12. There is no administration of drug doses for stomach acid disorders or combinations that exceed the doses suggested by the literature.

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