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Research Article

Prescribing pattern of gastrointestinal drugs

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ABSTRACT

Gastrointestinal diseases significantly affect millions of persons inducing a highly significant economical impact comprising health care costs and work absenteeism, in addition to patient's decreased quality of life. The causes of general gastrointestinal problem may be malabsorption disorder, gastroenteritis, colitis and ulcer in the stomach or small intestine. Alternatively the problem may be linked to diet, stress, sedentary lifestyle, food tolerance or allergy, medication etc.

The present study aimed to assess the current gastrointestinal drug prescribing pattern in the gastrointestinal diseases. This study was performed in Sri Aurobindo hospital, Indore in the outdoor patients and indoor patients in gastrointestinal department.

This study was done on prescriptions of patients having gastrointestinal diseases indicates that the most common age group to the diseases is 51-60 years. Gastrointestinal disease most commonly occurs in male as compare to female. Less number of cases were seen in the age group of 70 yrs-80 yrs. In cases of severe ailments, the number of gastrointestinal drug per prescription even exceeded more than 6-10.

Keywords: Cirrhosis, Gastrointestinal Drugs, Prescription, Ulcerative Colitis.

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1. INTRODUCTION

Gastrointestinal diseases are those that affect any section of the gastrointestinal tract, from oesophagus to the rectum, and the accessory digestive organ liver, gallbladder and pancreas. Various gastrointestinal diseases categorized by upper and lower GI tract and liver, Gastritis is a common condition which occurs when an imbalance between the corrosive action of gastric juice and the protective effect of mucus on the gastric mucosa develops. The amount of mucus in the stomach is insufficient to protect the surface epithelium from the destructive effects of hydrochloric acid.¹

Gastroesophageal reflux disease develops when the reflux of stomach contents in the oesophagus causes chronic symptoms (such as heartburn, regurgitation, occasionally sore throat and cough) and mucosal damage. Gastro oesophageal reflux disease, or GERD, is a digestive disorder that affects the lower oesophageal sphincter (LES), the ring of muscle between the oesophagus and stomach. Many people, including pregnant women, suffer from heartburn or acid indigestion caused by GERD. Reflux means to flow back or return. Therefore, gastro oesophageal reflux is the return of the stomach's contents back up into the oesophagus.

Peptic ulcer are open sores that develop on the inside lining of stomach and upper portion of small intestine. The most common symptoms of peptic ulcer is stomach pain. Peptic

ulcer include: Gastric ulcers that occur on the inside of the stomach. Duodenal ulcer that occurs on the inside of the upper portion of small intestine (duodenum).²

Pancreatitis is pathological swelling and inflammation of the pancreas, which is an organ that is important to digestion and regulation of blood sugar. There are two types of pancreatitis: acute and chronic. Acute pancreatitis generally develops suddenly and it is usually short term. Chronic pancreatitis which typically develops after multiple episodes of acute pancreatitis, and it is usually long term.³

Constipation occurs when bowel movement becomes less frequent or difficult. Going longer than three days without a bowel movement is not common. After three days, the stool or feces hardens and becomes difficult to pass. Constipation is usually caused by inadequate "roughage" or fibre in the diet, or a disruption of the regular routine or diet. Constipation causes a person to strain during a bowel movement. It might include small, hard stools, and sometimes causes anal problems such as fissures and haemorrhoids. Constipation is rarely the sign of a more serious medical condition.⁴

Irritable Bowel Syndrome is characterized most commonly, by cramping, abdominal pain, bloating, constipation and diarrhoea. Ulcerative is a chronic inflammatory disease of the mucosa of the colon and rectum which may ulcerate and become infected. It usually occurs in young adults and begins in the rectum and sigmoid colon. From there it may

spread to involve a variable proportion of the colon and, sometimes, the entire colon. Alcohol liver disease is damage to the liver and its function due to alcohol abuse. Alcoholic liver disease occurs after years of heavy drinking. Over time, scarring and cirrhosis can occur. Cirrhosis is the final phase of alcoholic liver disease.⁵⁻⁷

2. AIMS AND OBJECTIVES

Gastrointestinal diseases significantly affect millions of persons inducing a highly significant economical impact comprising health care costs and work absenteeism, in addition to patient's decreased quality of life. Gastrointestinal disease are common and often associated with adverse outcomes among the critically ill patients.³⁰The causes of general gastrointestinal problem may be malabsorption disorder, gastroenteritis, colitis and ulcer in the stomach or small intestine. Alternatively the problem may be linked to diet, stress, sedentary lifestyle, food tolerance or allergy, medication etc.

The present study aimed to assess the current gastrointestinal drug prescribing pattern in the gastrointestinal diseases. This study was performed in Sri Aurobindo hospital, Indore in the outdoor patients and indoor patients in gastrointestinal department. Sri Aurobindo Hospital is attached to the medical college (Sri Aurobindo Institute of Medical Sciences).

3. MATERIALS AND METHOD

The present study was performed using prescription of 100 patients suffering from different GI problems at Sri Aurobindo Hospital, Indore.

3.1 Patients Data Collection Form

Patients from various age group with different types of gastrointestinal diseases have been selected for the study. Patient's data such as the age, name, gender and data on prescribed drugs that include drug name, dosages form, route of administration, most prescribed drug etc. were recorded on a customized data collection sheet in a systematic approval manner. Each drug was counted only once without considering any change in the regimen.

3.2 Period of study

The study performed using prescription of 100 patients in Sri Aurobindo hospital suffering from gastrointestinal diseases. The study conducted in gastrointestinal, inpatients and outpatient departments. This study is based on hospital prospective and observational study conducted

in Sri Aurobindo hospital, Indore from period of august to November 2016

3.3 Performa of study

Sri Aurobindo Institute Of Pharmacy

1. Patients information

Name:

Age:

Gender:

2. Diseases information

Diseases:

2. Drugs prescription

Name of drug:

Dose:

4. RESULTS & DISCUSSION

The present study includes 100 prescriptions. Different data related to the gastrointestinal patients admitted in the hospital in outpatient and inpatients department were carefully noted and studied.

Table 1 indicates that out of the 100 prescriptions of gastrointestinal drugs studied, it was found that 78% were for male and 22% were for female indicating that for male patients were predominated over female patients for the occurrence of gastrointestinal diseases. It also indicates that maximum patients with gastrointestinal diseases were from the age group of 51 to 60 years followed by the age group of 31 to 40 years in Table-1 therefore interpreted that the gastrointestinal diseases were commonly occurrence in middle age people.

Greater prevalence in this age group may be due to sedentary life style of people and unhygienic practise by people. Contact with someone who has the virus .Contaminated food or water Unwashed hands after going to the bathroom or changing a diaper. It may also be because of consumption of health hazards like smoking, alcohol and drugs³¹

Table 1: Age and Sex distribution of gastrointestinal of gastrointestinal disease patients

Age group (year)	Male	Female	total
15-20	4	2	6
21-30	12	-	12
31-40	18	6	28
41-50	10	2	12
51-60	22	10	32
61-70	10	2	6
71-80	2	-	2
81 ABOVE	-	2	2
TOTAL	78	22	100

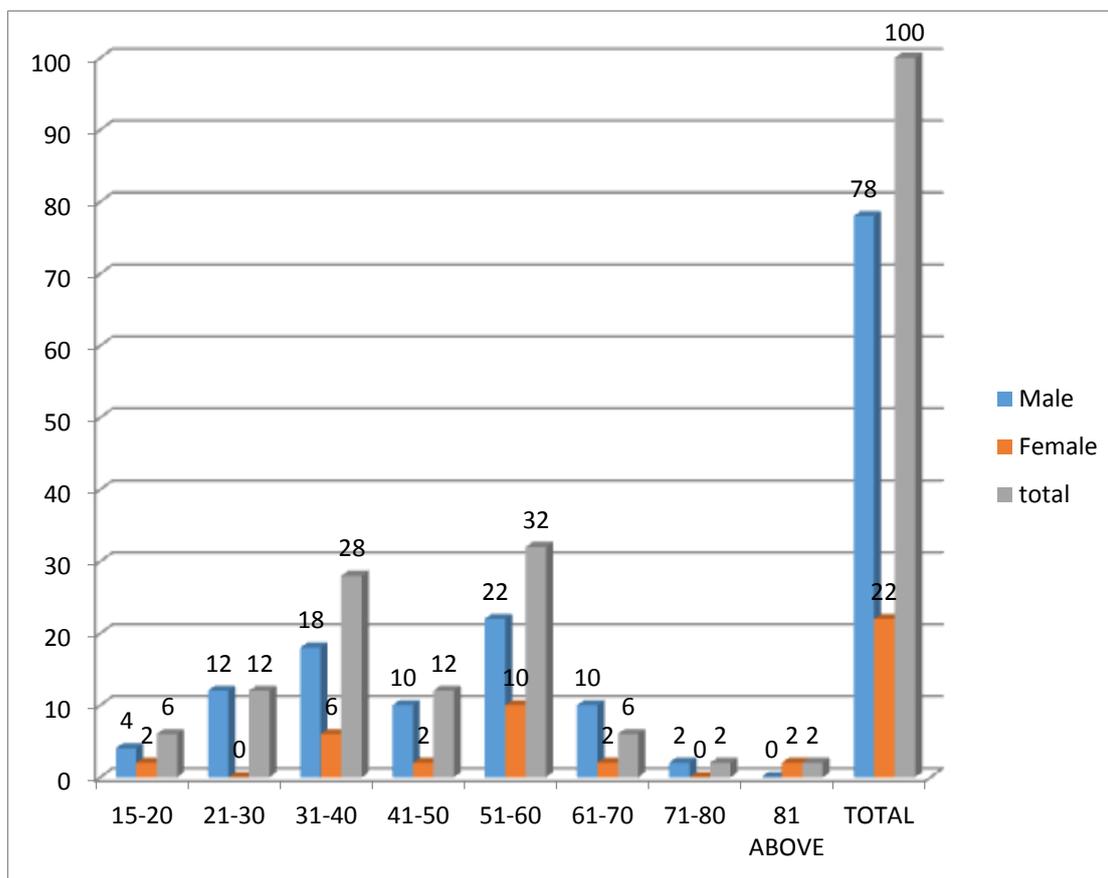


Figure 1: Age and sex distribution of gastrointestinal patients

Table 2 indicated that out of 100 patients of gastrointestinal disease, 78 patients (78%) were male and 22 patients (22%) belong to female gender. It was found that male patients were more affected by the gastrointestinal disease than in comparisons with female patients.

Table 2: Gender wise distribution

Gender	No of patients	% of patients
Male	78	78%
Female	22	22%

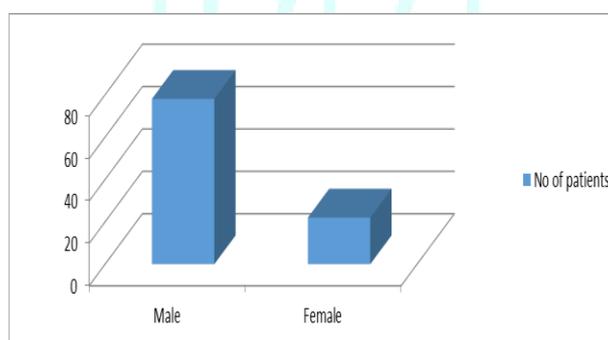


Figure 2: Gender wise distribution

Table 3 denoted the total number of drug per prescription. It also indicated that out of 100 patients, 84 patients were prescribed with 6 - 10 medicines (84%) per prescription followed by 5 medicines (82%) per prescription and >10 (32%) number of drug per prescription so it was found that the patients were prescribe mostly with the drugs from 6-10 no of drug

Table 3: Number of drug per prescription

Number of drug	Number of patients		Total	Percentage
	Male	female		
0-5	60	22	82	82%
6-10	64	20	84	84%
>10	28	4	32	32%

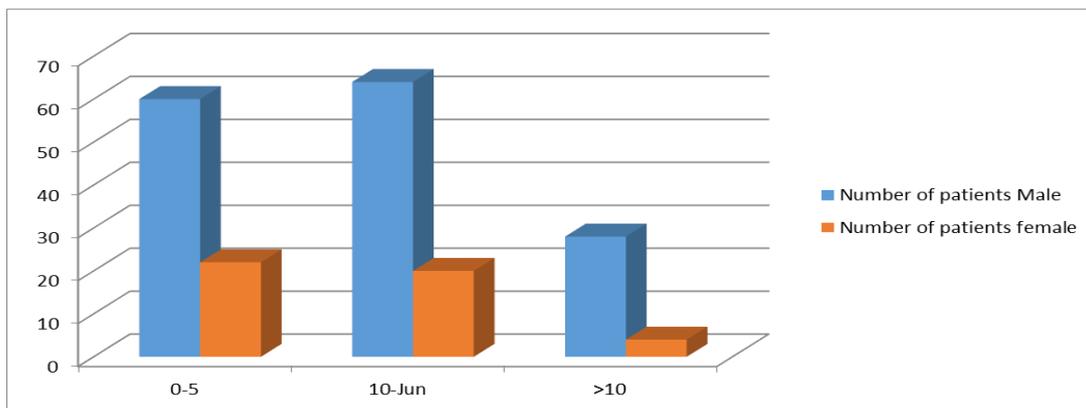


Figure 3: Number of drugs per prescription

Data shown in Table 4 indicated that among the different gastrointestinal drugs prescribed, composition and dosage form of drug. Table 4 clearly indicate that the higher number of patients received Rablet (92%) followed by Emest (44%). Nausea and vomiting is a common and distressing complication for patients with critical illness. Emest (44%) was the frequently utilized anti-emetic agent. Emeset was preferred probably due to better efficacy and safe. The major route of administration was intravenous route. Lacti hep was the most common laxative prescribed among the critically ill patients in the present.

safe drug for the treatment of gastric acidity and gastro-intestinal reflux disease. It works by blocking the action of proton pump in the stomach which is responsible for the production of excessive acid. It further reduces the acid production. It also treat stomach, intestine ulcer and pancreatitis diseases, Zollinger Ellison Syndrome which is a diseases associated with the excessive acid production. The present study also that a Emeset injection (ondansetron) category of Antiemetic is most frequently prescribed for the treatment of Nausea and vomiting. Emeset drug works on small intestine and brain that controls vomiting or nausea.

Several studies showed that Rablet (rabeprazole) category of proton pump inhibitor has been most widely used due to

Table 4: Percentage of drugs prescribed

Name of drug	Dosages form	Number of times prescribed drug	Percentage of total drug prescribed
RABLET	I/V(20MG)	92	92%
EMEST	I/V(4MG)	44	44%
LACTIHEP	SYP(30ML)	28	28%
H.ALBUMIN	I/V(100ML)	16	16%
ZINCOVIT	TABLET(1G)	16	16%
RCIFAX	TABLET(350MG)	12	12%
PANTOCID	TABLET	8	8%

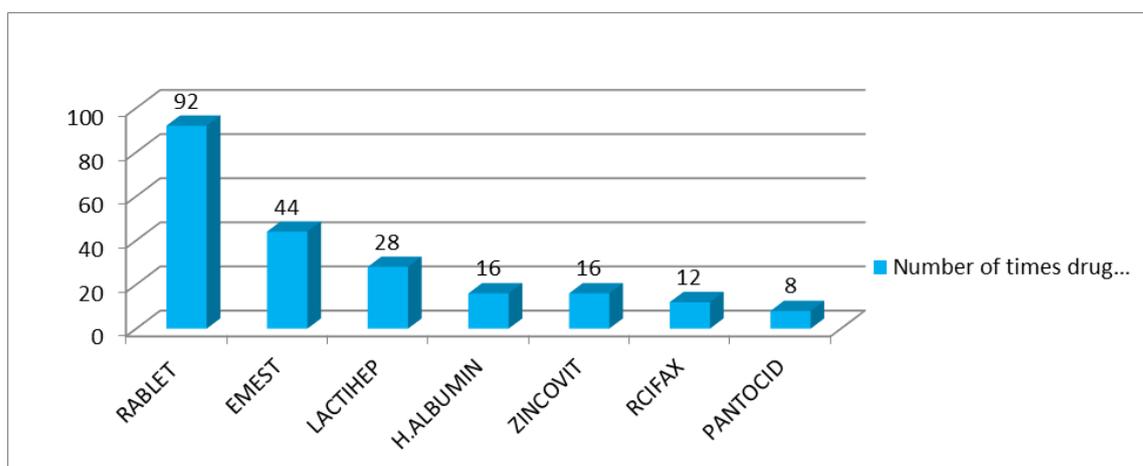


Figure 4: Percentage of drugs prescribed

Figure 4 percentage of drug prescribed is Rablet (I/V20mg) Emest (I/V4mg), lacti hep (I/V 30ml), H.Albumin (I/V 100ml), Zincovit (tablet1g), RCIFAX (tablet 350mg), Pantocid (tablet8mg).

5. CONCLUSION

Gastrointestinal diseases are most common in India. It includes wide variety of problem ranging from acidity to ulcers and many more. Many drugs with different brand name is available in the market to treat these gastrointestinal (GIT) related problems. This study on prescription of 100 patients having gastrointestinal diseases indicates that the most common age group to the diseases is 51-60 years. Gastrointestinal disease most commonly occurs in male as compare to female. Less number of cases were seen in the age group of 70 yrs-80 yrs. In cases of severe ailments, the number of gastrointestinal drug per prescription even exceeded more than 6-10. From the data collected it was observed that among the gastrointestinal drugs were found to be prescribed in following order:

RABLET > EMESET > LACTIHEP > H.ALBUMIN > ZINCOVIT > RCIFAX > PANTOCID Among the drugs, rablet was found to be the most common gastrointestinal drugs prescribed to treat gastrointestinal diseases like pancreatitis disease (chronic and acute) chronic liver disease, liver abscess, and abdomen pain. Emeset was found to be the second most common gastrointestinal drugs prescribed to treatment of Nausea and Vomiting.

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7. REFERENCES

1. Waugh. A, Grant. A "Anatomy and physiology in health and illness, 9th ed. Churchill Livingstone Elsevier limited; 2004. P. 327-333.
2. Venkatesh .D, Sudhaka .H.H, Textbook of medical physiology, 1st ed., Wolters Kluwer (India) PVT.LTD, New Delhi; 2015.P. 237.
3. Wright HI, Nadir A, Caraceni P, Nazi-Nadir F, De Maria N, Van Thiel DH. Gastrointestinal problems experienced in an intensive care unit. J Okla. State Med Assoc 1994; 87(12):537-545.
4. Vaki. .NS, Zanten .V, Kahrilas. P, and Jones .R 2006. The Montreal definition and classification of gastroesophageal reflux disease: global evidence-based consensus. American Journal of Gastroenterology, 2006; 101:1900-1920.
5. Camilleri, M., and D. E. Williams.,Economic burden of irritable bowel syndrome. Proposed strategies to control expenditures, Pharmacoeconomics; 2000; 17:331-335.
6. Ballington. A, Laughlin. M "Pharmacology" 3rd ed. CBS publishers & distribution, New Delhi; 2004. P. 282.
7. Tripathi KD "Essentials of medical pharmacology" 4th ed. Jaypee brother medical publishers; (p) Ltd, New Delhi; 2000. p.622-641.

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