PRESCRIPTION PATTERN ANALYSIS OF PHYSICIANS IN SELECTED AREA FOR MOST OCCURRING DISEASES

A Research Report submitted to the Department of Pharmacy, East West University in partial fulfillment of the requirement for the Master's degree of Pharmacy

Submitted by
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DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled

"Prescription pattern analysis of Physicians in selected area for most occurring diseases" is an authentic and genuine research work carried out by me under the guidance of **Ms.Nazia Hoque,** Senior lecturer, Department of Pharmacy, East West University, Aftabnagar, Dhaka, Bangladesh.

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Abstract

Bangladesh has one of the highest population growth rates in the world. The country's health system is extremely poor and underdeveloped.It has a high risk of infectiuos diseases like typhoid fever, respiratory diseases, diarrhea and hepatitis A & E. A suvey on prescribing pattern was done for a period of up to 6 months in the selected area of the Dhaka city.This paper represents a brief review on disease patttern especially in Respiratory, Cardiovascular and Alimentary tract system, which types of drugs are prescribed & irrational practice of drugs in those places.Respiratory disorders are most common disorders in Bangladesh.In common cold, Antibiotic is highly used where the percentage is 11.76%.We can use bronchodilator for Asthma which is highly usable and where the percentage is 21%. In case of pneumonia, Antibiotic is highly used where the percentage is 20%. For Cardiovascular diseases (CVD) are one of the major health problems throughout the world. Beta blocker is highly prescribed drug for cardiovascular patients where the percentage is 38.46%.In case of Alimentary tract disorder the most common disase is peptic ulcer.Here PPI is highly used where the percentage is 61.9%.The health system of Bangladesh is regulated by health professionals such as physicians, pharmacist etc.In the absence of enough qualified doctors,drugs are often prescribed by unqualified health workers. People can get any drug from any drug store without a prescription.Medically inappropriate and economically inefficient use of medicines is observed throughout the Bangladesh.The prescribing pattern of the outpatient departments of tertiary level hospital are often copied by community practitioners and health workers.Needless to say that these unqualified community practitioners and health workers tremendously influence the drug utilization pattern in the community and often contribute to misuse and over utilization of drugs.Because of the careless behave of the people of our country about following prescription variuos types of diseases and the risks of death is increasing day by day.

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Chapter One

Introduction

1. Introduction

1.1 Health care system in Bangladesh

The Health care system in Bangladesh falls under the control of the Ministry of Health and Family Planning. The government is responsible for building health facilities in urban and rural areas. For example, in the late 1980's in Bangladesh, the rural health facilities that existed in the rural areas were mostly sub-district health centers, rural dispensaries and family welfare centers. Unfortunately, they were poorly administered. (WHO,2010)

In Bangladesh, the majority of the country's population lives in rural areas, while the majority of health professionals work in urban centers. Also, the rapid growth of the private medical system meant that fewer professionals remained in the public sector to take care of the masses. Private systems are mostly out of reach for poor people who can barely afford to live day by day.

The health system in Bangladesh is supply-side financed, meaning that poor households can have access to medical treatments or at least to essential medical care. Still, there is a large gap because community financing programs are missing. Some NGO's have started to offer micro-credit medical programs in order to help develop a national insurance program. One third of the national health system is publicly financed, meaning that the government pays for it from taxes and international subsidies. This means that the poor population is forced to pay for medical expenses while they can barely afford to put bread on the table because of the immense lack of jobs. (WHO,2010)

1.2 Disease Pattern in Bangladesh

Bangladesh has one of the highest growth rates in the world. The fertility rate is extremely high in the country's society beacuse of patriarchal issues that request women to bear children and work in rural, menial jobs. Bangladesh's population is highly rural with urban centers being limited. It also has a high risk of infectious diseases like typhoid fever,respiratory diseases,UTI's diarrhea and heapatitis A & E.This is because the country health system is extremely poor and underdeveloped.Most women dont receive medical treatment, while some of them spent thier

entire their lives without making contact with a medical professional.Health problems abound,springing from poor water quality and prevalance of infectious diseases.Common diseases such as Malaria and dengue were rampant in Bangladesh.

Malnutrition in Bangladesh has been a persistent problem for the poverty-stricken country.The world Bank estimates that Bangladesh is ranked 1st in the world of the number of children suffering from malnutrition.In Bangladesh 26% of the population are under nourishedand & 46% of the suffers from moderate to severe under weight problem.43% of children under 5 years old are stunted.One in five preschool age children are vitamin A deficient and one in two are anemic.

More than 45% of rural families and 76% of urban families were below the acceptable caloric intake level.According to the World Bank, about one -third of babies in Bangladesh are born with low birth weight, increasing infant mortality rate and leads to increasing risk of diabetes and heart ailments in adulthood.According to UNICEF, one neonate dies in Bangladesh every three to four minutes, 120000 neonates die every year.

1.3 Prescribing pattern in Bangladesh

The total number of registered physicians in bangladesh is 32,498,thus making one physician for every 4000 people (who,2000). In the absence of enough qualified doctors, drugs are often prescribed by unqualified health workers and people can get any drug from any drug store without a prescription.each day new drugs with higher cost are coming into market in large scale. Family/ individuals have to spend big amounts of money for purchasing drugs. For example, bangladesh spent 5,500 cores in health onlyin the year 1996-1997,out of which total spending on drugs was tk 2,700 cores.but it was found that the family/individuals had to spend tk 2500 cores which are about 90.7% of total spending on drugs. Goverment and other sources spent only tk 250 cores for drugs.*(Bangladesh national health accounts 1996-1997).*

Medically inappropriate and economically inefficient use of medicines is observed throughout the bangladesh.it has a severe shortage of human resourcesfor health and a workforce far below the threshold value of 22.8 per 10,000 population estimated by world health organization (WHO)as necessary for meeting the health related millenium development goals.given the

shortage of qualified health work force in bangladesh and the inequity of their distribution,People prefer to seek health care from non qualified providers in the informal sector,especiallythe poor and the disadvantaged. Lack of facilities,lack of doctors and lack of medications, moreover lack of appropriate knowledgeof both doctorsand patientsare leading health of rural patients in great risk.inadequate supply of essential drugs,substandard quality,uncontrolled drug prices and inappropriate uses of drugs are major problems in bangladesh. (Bangladesh national health accounts 1996-1997)

Prescriptions may include orders to performed by a patient care taker,nurse,pharmacist or other therapist. commonly the term prescription is usedto mean an order to take certain medication.The outpatient departmentsof the hospital havebeen chosen by both rural and urban population of different classes and socio economic back ground daily come to these outpatient departments from various parts of bangladesh to take treatment of their common diseases. The prescribing pattern of the outpatient departments of tertiary level hospitals are often copied by community practitioners and health workers.

Needless to say that these unqualified community practitioners and health workers tremendously influence the drug utilization pattern in the communityand often contribute to misuse and over utilization of drugs.

The rational use of drugs is an essential element in achieving quality of health and medical carefor patient and the community and this must be the important concern of practitioners.Use of antimicrobial without any valid reasonis most common in bangladesh.this is the reason why antibiotic resistance is growing up.

Over the counter medicines have emergedas drugs of serious misuse across bangladesh,and other neighbouring countries. One report estimates that there are 4 million drugmiss users in the south asian region,where bangladesh accounts for half million of the total.Along the common practices of self medication,almost every drug store salesperson is illegally involved in the recommendation and sells of prescription only medicines in Bangladesh.

1.4 SOME COMMON DISORDERS

Respiratory Tract Disorders

Common Cold

The common cold is an acute viral infection of the upper respiratory tract that affects the nose, throat, sinuses, larynx, and sometimes the lungs. Varieties of rhinovirus and coronavirus are the most common causes.These viruses are easily transmitted through contact with the secretions of infected people (e.g., handshakes, shared objects, kissing). Once the virus enters the body, it multiplies in the cells (often at the back of the nose) and causes an inflammatory response that produces characteristic symptoms such as excessive mucus probably in an attempt to rid the body of the virus and swollen airways. (Ronald Eccles,2009)

The typical symptoms of a cold include a cough, a runny nose, nasal congestion and a sore throat, sometimes accompanied by muscle ache, fatigue, headache, and loss of appetite. A sore throat is present in about 40% of the cases and a cough in about 50%, while muscle ache occurs in about half. In adults, a fever is generally not present but it is common in infants and young children. The cough is usually mild compared to that accompanying influenza. While a cough and a fever indicate a higher likelihood of influenza in adults, a great deal of similarity exists between these two conditions. A number of the viruses that cause the common cold may also result in asymptomatic infections. The color of the sputum or nasal secretion may vary from clear to yellow to green and does not indicate the class of agent causing the infection. (Eccles R, 2005)

No cure for the common cold exists, but the symptoms can be treated. It is the most frequent infectious disease in humans with the average adult getting two to three colds a year and the average child getting between six and twelve. These infections have been with humanity since ancient times.

Asthma

Asthma is the common inflammatory disease of airways characterized by variable and recurring symptoms, reversible airflow obstruction and bronchospasm.Asthma is clinically classified according to symptoms, forced expiratory volume in 1 sec. And peak expiratory flow rate.itsdiagnosis is usually made based on the pattern of symptoms or response to therapy over time.

Asthma is characterized by recurrent episodes of wheezing, shortness of breath, chest tightness, andcoughing. Sputum may be produced from the lung by coughing but is often hard to bring up. During recovery from an attack, it may appear pus-like due to high levels of white blood cells called eosinophils.Symptoms are usually worse at night and in the early morning or in response to exercise or cold air.Some people with asthma rarely experience symptoms, usually in response to triggers, whereas others may have marked and persistent symptoms. (George,2005)

While there is no cure for asthma, symptoms can typically be improved. A specific, customized plan for proactively monitoring and managing symptoms should be created. This plan should include the reduction of exposure to allergens, testing to assess the severity of symptoms, and the usage of medications. The treatment plan should be written down and advise adjustments to treatment according to changes in symptoms. (Ripoll,2011)

The prevalence of asthma has increased significantly since the 1970s. As of 2010, 300 million people were affected worldwide.In 2009 asthma caused 250,000 deaths globally.(Lemanske R,2009)

Bronchitis

Bronchitis is an infection of the main airways of the lungs (bronchi) which causes them to become irritated and inflamed. The main symptom is cough,sore throat,wheezing and blocked nose.In most cases bronchitis will clear up by itself within a week without need for treatment.the type of bronchitis is known as acute bronchitis. If the symptom least here months, this is known as chronic bronchitis. (Albert RH,2010)

Acute bronchitis can affect people of all ages but most common in young children under the age of five.Its more common in winter.The chronic bronchitis can affected most commonly adults. In more than 90% of cases the cause is a viral infection.These viruses may be spread through the air when people cough or by direct contact. Risk factors include exposure to tobacco smoke, dust, and other air pollution. A small number of cases are due to high levels of air pollution or bacteria such as Mycoplasma pneumoniae or Bordetella pertussis. Diagnosis is typically based on a person's signs and symptoms. Acute bronchitis is one of the most common diseases. About 5% of adults are affected and about 6% of children have at least one episode a year. It occurs more often in the winter. More than 10 million people in the United States visit a doctor each year for this condition with about 70% receiving antibiotics which are mostly not needed.There are efforts to decrease the use of antibiotics in acute bronchitis. (Braman, SS ,2006)

Pneumonia

Pneumonia is an inflammation of the lung, usually caused by an infection. Three common causes are bacteria,viruses and fungi.you can also get pneumonia by accidentally in haling liquid or chemical.People most at the risk are older than 65 or younger than 2years of age,or allready have health problems.often pneumonia begins after an upper respiratory tract infection of nose and throat with symptoms of pneumonia beginning after 2 or 3 days of cold or sore throat. Pneumonia affects approximately 450 million people globally per year (7% of the population) and results in about 4 million deaths. Although pneumonia was regarded by William Osler in the 19th century as "the captain of the men of death, the advent of antibiotic therapy and vaccines in the 20th century has seen improvements in survival. Nevertheless, in developing countries, and among the very old, the very young, and the chronically ill, pneumonia remains a leading cause of death. (Eddy, Orin 2005)

Oral antibiotics,rest, simple analgesics, and fluids usually suffice for complete resolution. However, those with other medical conditions, the elderly, or those with significant trouble breathing may require more advanced care. If the symptoms worsen, the pneumonia does not improve with home treatment, or complications occur, hospitalization may be required. Worldwide, approximately 7–13% of cases in children result in hospitalization,whereas in the developed world between 22 and 42% of adults with community-acquired pneumonia are admittedIn the terminally ill and elderly, especially those with other conditions, pneumonia is

often the immediate cause of death. In such cases, particularly when it cuts short the suffering associated with lingering illness, pneumonia has often been called "the old man's friend." (Baudouin,2009)

The global economic cost of community-acquired pneumonia has been estimated at $17 billion annually. Other estimates are considerably higher. In 2012 the estimated aggregate costs of treating pneumonia in the United States were $20 billion. the median cost of a single pneumonia-related hospitalization is over $15,000. According to data released by the Centers for Medicare and Medicaid Services, average 2012 hospital charges for inpatient treatment of uncomplicated pneumonia in the U.S. were $24,549 and ranged as high as $124,000. The average cost of an emergency room consult for pneumonia was $943 and the average cost for medication was $66 Aggregate annual costs of treating pneumonia in Europe have been estimated at €10 billion. (Nathwani D ,2012)

Cough

Coughing is a reflex that keeps your throat and airways clear. Although it can be annoying.coughing helps your body heals or protects itself.coughs can be either acute or chronic.actue coughs begins suddenly and usually last no more than 2 to 3 weeks.Acute coughs are the kind you most often get with cold or flu.chronic coughs last longer than 2 to 3 weeks.

A cough is a protective reflex in healthy individuals which is influenced by psychological .The cough reflex is initiated by stimulation of two different classes of afferent nerves, namely the myelinated rapidly adapting receptors, and nonmyelinated C-fibers with endings in the lungs. However it is not certain that the stimulation of nonmyelinated C-fibersleads to cough with a reflex as it's meant in physiology (with its own five components): this stimulation may cause mast cellsdegranulation (through an asso-assonic reflex) and edema which may work as a stimulus for rapidly adapting receptors. (Goldsobel AB,2010)

Treatment should target the cause for examplesmoking cessation or discontinuing ACE inhibitors. Cough suppressants such as codeine or dextromethorphan are frequently prescribed, but have been demonstrated to have little effect. Other treatment options may target airway inflammation or may promote mucus expectoration.(Thompson,2013)

Alimentary Tract Disorders

Peptic ulcer

Peptic ulcer disease (PUD), also known as a peptic ulcer or stomach ulcer, is a break in the lining of the stomach, first part of the small intestine, or occasionally the lower esophagus. An ulcer in the stomach is known as a gastric ulcer while that in the first part of the intestines is known as a duodenal ulcer.

The most common symptoms are waking at night with upper abdominal pain or upper abdominal pain that improves with eating. The pain is often described as a burning or dull ache. Other symptoms include belching, vomiting, weight loss, or poor appetite. About a third of older people have no symptoms. Complications may include bleeding, perforation, and blockage of the stomach. Bleeding occurs in as many as 15% of people.The most common cause of peptic ulcer is a stomach infection associated with the Helicobacter pylori (H pylori) bacteria. Many people contract H .pylori at a young age, but symptoms most commonly occur in adulthood. (Krstić, 2011)

Diet does not play an important role in either causing or preventing ulcers. Treatment includes stopping smoking, stopping NSAIDs, stopping alcohol, and medications to decrease stomach acid. The medication used to decrease acid is usually either a proton pump inhibitor (PPI) or an H2 blocker with four weeks of treatment initially recommended.Ulcers due to H. pylori are treated with a combination of medications such as amoxicillin, clarithromycin, and a PPI.Antibiotic resistance is increasing and thus treatment may not always be effective. Bleeding ulcers may be treated byendoscopy, with open surgery typically only used in cases in which it is not successful.In the case of H pylori-related peptic ulcers, the infection can be treated successfully with antibiotics. For peptic ulcers not related to H pylori, antacids and other medications are an effective treatment. (Peura, DA ,October 2011)

Peptic ulcers are present in around 4% of the population.About 10% of people develop a peptic ulcer at some point in their life. They resulted in 301,000 deaths in 2013 down from 327,000 deaths in 1990. The first description of a perforated peptic ulcer was in 1670 in

Princess Henrietta of England. *H. pylori* was first identified as causing peptic ulcers by Barry Marshall and Robin Warren in the late 20th century, a discovery for which they received the Nobel Prize in 2005. (GBD,2013)

Diarrhea

Diarrhea is more frequent and more liquid bowel movements than normal. There are many causes. Diarrhea often is caused by an infection with bacteria, viruses or a parasite. Bacteria cause diarrhea either by invading the intestine or by producing a toxin that makes the intestine secrete more water. When the diarrhea is caused by food contaminated with bacteria or parasites, people often refer to this as food poisoning.

The most common cause is an infection of the intestines due to either a virus, bacteria, or parasite; a condition known as gastroenteritis. These infections are often acquired from food or water that has been contaminated by stool, or directly from another person who is infected. It may be divided into three types: short duration watery diarrhea, short duration bloody diarrhea, and if it lasts for more than two weeks, persistent diarrhea. The short duration watery diarrhea may be due to an infection by cholera. If blood is present it is also known as dysentery. A number of non-infectious causes may also result in diarrhea, including hyperthyroidism, lactose intolerance, inflammatory bowel disease, a number of medications, and irritable bowel syndrome.In most cases stool cultures are not required to confirm the exact cause.(WHO,2013)

Prevention of infectious diarrhea is by improved sanitation, clean drinking water, and hand washing with soap.Breastfeeding for at least six months is also recommended as is vaccination against rotavirus. Oral rehydration solution (ORS), which is clean water with modest amounts of salts and sugar, is the treatment of choice. Zinc tablets are also recommended. These treatments have been estimated to have saved 50 million children in the past 25 years. When people have diarrhea it is recommended that they continue to eat healthy food and babies continue to be breastfeed.If commercial ORS are not available, homemade solutions may be used.In those with severe dehydration, intravenous fluids may be required. Most cases, however, can be managed well with fluids by mouth.Antibiotics, while rarely used, may be recommended in a few cases such as those who have bloody diarrhea and a high fever, those with severe diarrhea following

travelling, and those who grow specific bacteria or parasites in their stool. Loperamide may help decrease the number of bowel movement but is not recommended in those with severe disease. (DuPont HL , 2014)

Constipation

Constipation means different things to different people. For many people, it simply means infrequent stools. For others however constipation means hard stools, difficulty passing stools (straining), or a sense of incomplete emptying after a bowel movement. The cause of each of these symptoms of constipation vary, so the approach to each should be tailored to each specific person.

Constipation is a symptom with many causes. These causes are of two types obstructed defecation and colonic slow transit (or hypomobility). About 50% of patients evaluated for constipation at tertiary referral hospitals have obstructed defecation.This type of constipation has mechanical and functional causes. Causes of colonic slow transit constipation include diet, hormonal disorders such as hypothyroidism, side effects of medications, and rarely heavy metal toxicity. Because constipation is a symptom, not a disease, effective treatment of constipation may require first determining the cause. Treatments include changes in dietary habits, laxatives, enemas, biofeedback, and in particular situations surgery may be required.Constipation also can alternate with diarrhea. This pattern commonly occurs as part of the irritable bowel syndrome (IBS). At the extreme end of the constipation spectrum is fecal impaction, a condition in which stool hardens in the rectum and prevents the passage of any stool. (Emmnauel A ,2009).

The main treatment of constipation involves the increased intake of water and fiber (either dietary or as supplements).The routine use of laxatives is discouraged, as having bowel movements may come to be dependent upon their use. Enemas can be used to provide a form of mechanical stimulation. However, enemas are generally useful only for stool in the rectum, not in the intestinal tract. (Phillips SF ,2000)

Constipation is common in the general population incidence of constipation varies from 2 to 30%. In the United States expenditures on medications for constipation are greater than $250 million per year. (Canan,2008)

Irritable bowel syndrome (IBS)

Irritable bowel syndrome (IBS) is a common disorder that affects the large intestine (colon). Irritable bowel syndrome commonly causes cramping, abdominal pain, bloating, gas, diarrhea and constipation. IBS is a chronic condition that you will need to manage long term.

As a functional gastrointestinal disorder (FGID), IBS has no known organic cause.Onset of IBS is more likely to occur after an infection or a stressful life event but varies little with age. The most common theory is that IBS is a disorder of the interaction between the brain and the gastrointestinal tract.For at least some individuals, abnormalities in the gut flora occur, and it has been theorised that these abnormalities result in inflammation and altered bowel function. (Tosh PK,2014).

While the cause of IBS is unknown, a disruption of the brain-gut axis and small intestinal bacterial overgrowth are thought to be important factors. The risk of developing IBS increases six-fold after acute gastrointestinal infection. Postinfection, further risk factors are young age, prolonged fever, anxiety, and depression. Antibiotic use also appears to increase the risk of developing IBS. (Simrén 2010)

Even though signs and symptoms are uncomfortable, IBS unlike ulcerative colitis and Crohn's disease, which are forms of inflammatory bowel disease doesn't cause changes in bowel tissue or increase your risk of colorectal cancer.Only a small number of people with irritable bowel syndrome have severe signs and symptoms. Some people can control their symptoms by managing diet, lifestyle and stress. Others will need medication and counseling. (Jones, 2002)

Cardiovascular Disorders

Myocardial infarction

Myocardial infarction or heart attack is a medical emergency in which blood flow to the heart is suddenly blocked, causing heart muscle death due to lack of oxygen. Oxygenated blood flow that is supplyed to the heart by the coronary arteries become blocked by atheromatous plaques, that rupture and form a thrombus (blood clot) around them. Without blood supply, as any living tissue the heart muscle dies. If a large area of myocardium is affected, death is very probable. Emergency myocardial infarction treatment is manditory to restore blood flow to the infarction area.

The main cause of both unstable angina and myocardial infarction is coronary artery disease. Coronary heart disease occurs when atheromatous plaques appear along the internal walls of coronary arteries and thus reduces blood flow to the heart. In majority of people coronary heart diseases begins in adolescence and develops over the years. (Blömstrom-Lundqvist,2012)

Most MIs occur due to coronary artery disease. Risk factors include high blood pressure, smoking, diabetes, lack ofexercise, obesity, high blood cholesterol, poor diet, and excessive alcohol, among others. The mechanism of an MI often involves the rupture of an atherosclerotic plaque leading to complete blockage of a coronary artery. MIs are less commonly caused by coronary artery spasms which may be due to cocaine, significant emotional stress, and extreme cold, among others. A number of tests are useful to help with diagnosis including electrocardiograms(ECGs), blood tests, and coronary angiography An ECG may confirm an ST elevation MI if ST elevation is present. Commonly used blood tests include troponin and less often creatine kinase MB. (Henry,2008).

Aspirin is an appropriate immediate treatment for a suspected MI Nitroglycerin or opioids may be used to help with chest pain; however, they do not improve overall outcomes. Supplemental oxygen should be used in those with low oxygen levels or shortness of breath.In ST elevation MIs treatments which attempt to restore blood flow to the heart are typically recommended and include angioplasty, where the arteries are pushed open, or thrombolysis, where the blockage is removed using medications. (O'Connor,2010)

Angina pectoris

Angina pectoris commonly known as angina is the sensation of chest pain, pressure, or squeezing, often due to ischemia of the heart muscle from obstruction or spasm of the coronary arteries. While angina pectoris can derive from anemia, cardiac arrhythmias and heart failure, its main cause is coronary artery disease, anatherosclerotic process affecting the arteries feeding the heart. There is a weak relationship between severity of pain and degree of oxygen deprivation in the heart muscle.

Angina pectoris can be quite painful, but many patients with angina complain of chest discomfort rather than actual pain: the discomfort is usually described as a pressure, heaviness, tightness, squeezing, burning, or choking sensation. Apart from chest discomfort, anginal pains may also be experienced in the epigastrium (upper central abdomen), back, neck area, jaw, or shoulders.(White.PD ,1931).

Angina results when there is an imbalance between the heart's oxygen demand and supply. This imbalance can result from an increase in demand (e.g., during exercise) without a proportional increase in supply (e.g., due to obstruction or atherosclerosis of the coronary arteries).However, the pathophysiology of angina in females varies significantly as compared to males. Non-obstructive coronary disease is more common in females. (KheraAmit ,2010)

The most specific medicine to treat angina is nitroglycerin. It is a potent vasodilator that makes more oxygen available to the heart muscle. Beta blockers andcalcium channel blockers act to decrease the heart's workload, and thus its requirement for oxygen. Nitroglycerin should not be given if certain inhibitors such asSildenafil (Viagra), Tadalafil (Cialis), or Vardenafil (Levitra) have been taken within the previous 12 hours as the combination of the two could cause a serious drop in blood pressure. Treatments for angina are balloon angioplasty, in which the balloon is inserted at the end of a catheter and inflated to widen the arterial lumen.Stents to maintain the arterial widening are often used at the same time. Coronary bypass surgery involves bypassing constricted arteries with venous grafts. This is much more invasive than angioplasty. (Iheanacho,2010).

Hypertension

Hypertension also referred to as high blood pressure is a condition in which the arteries have persistently elevated blood pressure. Every time the human heart beats, it pumps blood to the whole body through the arteries.Blood pressure is the force of blood pushing up against the blood vessel walls. The higher the pressure the harder the heart has to pump.Hypertension can lead to damaged organs, as well as several illnesses, such as renal failure (kidney failure), aneurysm, heart failure, stroke, or heart attack. High blood pressure generally develops over many years, and it affects nearly everyone eventually.

Blood pressure is expressed by two measurements, the systolic and diastolic pressures, which are the maximum and minimum pressures, respectively, in the arterial system. The systolic pressure occurs when the left ventricle is most contracted; the diastolic pressure occurs when the left ventricle is most relaxed prior to the next contraction. Normal blood pressure at rest is within the range of 100–140 mmHg systolic and 60–90 mmHg diastolic. Hypertension is present if the blood pressure is persistently at or above 140/90 millimeters mercury (mmHg) for most adults; different criteria apply to children. (James.PA,2013)

The first chemical for hypertension, sodium thiocyanate, was used in 1900 but had many side effects and was unpopular. Several other agents were developed after the Second World War, the most popular and reasonably effective of which were tetramethyl ammonium chloride, hexamethonium, hydralazine and reserpine (derived from the medicinal plant *Rauwolfia serpentina*). None of these were well tolerated. A major breakthrough was achieved with the discovery of the first well-tolerated orally available agents. The first was chlorothiazide, the first thiazide diuretic and developed from the antibiotic sulfanilamide, which became available in 1958. Subsequently beta blockers, calcium channel blockers, angiotensin converting enzyme (ACE) inhibitors, angiotensin receptor blockers and renin inhibitors were developed as antihypertensive agents. (Garrison ,1996)

Ischemic heart disease

Coronary artery disease (CAD), also known as ischemic heart disease (IHD) atherosclerotic heartdisease,atherosclerotic cardiovascular diseaseand coronary heart disease is agroup of

diseases that includes stable angina, unstable angina, myocardial infarction, and sudden coronary death. It is within the group ofcardiovascular diseases of which it is the most common type. A common symptom is chest pain or discomfort which may travel into the shoulder, arm, back, neck, or jaw. Occasionally it may feel like heartburn. The first sign is occasionally a heart attack. Other complications include heart failure or an irregular heartbeat.Riskfactors include high blood pressure, smoking, diabetes, lack of exercise, obesity, high blood cholesterol, poor diet, and excessive alcohol, among others. (Sujata K. 2010)

Risk factors include high blood pressure, smoking, diabetes, lack of exercise, obesity, high blood cholesterol, poor diet, and excessive alcohol, among others. Other risks include depression. The underlying mechanism involvesatherosclerosis of the arteries of the heart. A number of tests may help with diagnoses including electrocardiogram,cardiac stress testing, coronary computed tomographic angiography, and coronary angiogram, among others. (Charlson,2013)

Prevention is by eating a healthy diet, regular exercise, maintaining a healthy weight and not smoking. Sometimes medication for diabetes, high cholesterol, or high blood pressure are also used. Treatment involves the same measures as prevention. (Boden,2014)

In 2013 CAD was the most common cause of death globally, resulting in 8.14 million deaths (16.8%) up from 5.74 million deaths (12%) in 1990. The risk of death from CAD for a given age has decreased between 1980 and 2010 especially in the developed world. The number of cases of CAD for a given age has also decreased between 1990 and 2010. In the United States in 2010 about 20% of those over 65 had CAD, while it was present in 7% of those 45 to 64, and 1.3% of those 18 to 45. Rates are higher among men than women of a given age. (CDC,2011)

Chapter Two
Aims
&
Objective

Aims and Objective

1) To identify the disease pattern in selected area.

2) To identify most common diseases in selected area.

3) To know the doctor's prescribing pattern in selected area

4) To give an idea about the drugs mostly prescribed for mostly occuring top 3 diseases.

Chapter Three

Methodology

Steps of Methodology

3.1 Selection of the area

Selecting proper area for survey is a crucial part for getting perfect data,which represent the actual condition. Our captial city dhaka is the living place of 10 million people.as the most ancient city like other facilities the health facilities of dhaka are better than other cities of bangladesh.so people from all part of our country come here for the treatment of their diseases.so dhaka selected for my survey work.there are many hospitals and hundreds of private clinics in dhaka city

In this survey the prescription are collected from the following hospital:

- ✓ Islami bank central hospital (kakrail)
- ✓ Islami bank hospital (motijheel)
- ✓ Popular diagnostic centre (shantinagar branch)
- ✓ Pan pacific hospital (motijheel)
- ✓ Birdem hospital

3.2 Duration of survey

Duration of survey was 6 months commencing from **January 2015 to June 2015**. To complete the survey in time, a work schedule was prepared depending on different tasks of the study. Two months were spent for selection of topic, development of the protocol. Subsequent months were spent on official correspondence, data collection, data analysis, report writing and submission of report.

3.3 Sampling design

A sampling design is a definite plan for obtaining a sample from a given area.It refers to the technique of the procedure the researchers would adopt in selecting items for the sample.

In this survey the prescription are collected from both outdoor and indoor patient in the hospital.the patients who are visiting general practitioner and specialist doctors also

counted.during the period of sampling certain information are extract from the prescriptions to be collected. The information was related to the prescribing of the drugs for specific disorder from which specific systemic disease are recognized.The criteria to be considered were :

- ✓ Sign and symptoms in the prescription
- ✓ Associated drugs
- ✓ Confirmed diagnosis
- ✓ Number of prescription on specific systemic disease
- ✓ Group of drug prescribed for associated diseases

3.4 Preparation of method for collecting data

Collected the primary data that is the data are collected afresh and for the first time and happens to be orginal in character.

Primary data can be obtained either through observations or through direct communication with patients.

3.5 Data processing and graphical representation

Finally all the collected raw data are processed and represented to various aspects through MS-Excel.

3.6 Materials

In any kind of thesis work certain kinds of materials are required to express the whole thing.Here certain software has helped me to achieve my goal.Drug data and patient characteristic data were computed using MS-Excel.The results were expressed as proportions or as percentages.The retrieved medical records contained most of the required information.

Chapter Four

Results

DATA ANALYSIS & RESULTS

All the given informations are diagnosed from the total 500 prescriptions on different types of disorder.The diagnosed process has been taken on the basis of following criteria:

- ✓ Sign and symptoms
- ✓ Prescribed drugs
- ✓ Confirmed diagnosis

According to this survey, the data on the basis of two criteria have been analyzed, such as-

- ✓ Disease wise drugs analysis
- ✓ Group wise drugs analysis

4.1 Data compilation

A survey study was desined to see the antibiotics prescription pattern in selected area of dhaka city.The most prospective general and specialized govermental and private hospitals were covered to count and examine the prescription for purpose.A total of 500 prescription were collected and the numbers of prescription contained different kind of systemic disorder are shown in table

TABLE 1: Proportion of prescription containing different diseases from the total 500 prescription

Name of the disorders	Related no. of prescription	Percentages from total prescription
Alimentary tract disorder	85	17 %
Cardiac disorder	82	16.4%
Dermatological disorder	65	13%
Gynecological disorder	48	9.6%
Nervous system disorder	68	13.6%
Respiratory tract disorder	92	18.4%
Urogenital disorder	60	12%
Total	500	100 %

Prescription pattern analysis of Physicians in selected area for most occurring diseases
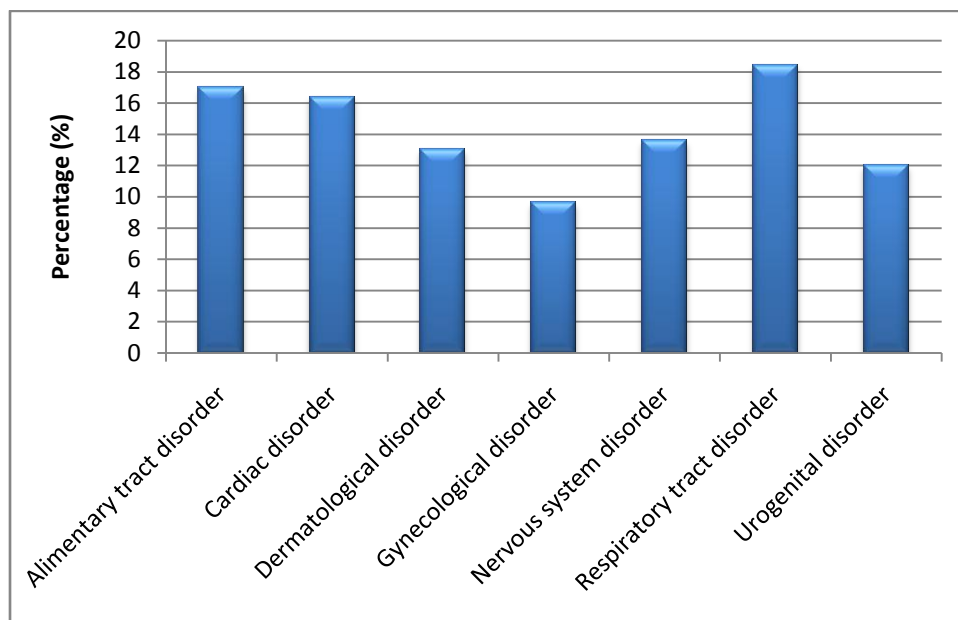
Fig 1: Percentage of prescription containing different systemic disorders among from the total prescription

From the above representation we have found that among total 500 prescriptions. 17% of total prescription containing Alimentary tract disorder,16.4% of total prescription containing cardiac disorder,13% of total prescription containing dermatological disorder,9.6% of total prescription containing gynecological disorder,13.6% of total prescription containing   nervous system disorder,18.4% of total prescription containing respiratory disorder,12% of total prescription containing urogenital disorder.

4.2 Criteria of analysis: Disease wise prescribed drugs analysis

COMMON COLD

All the prescribed drugs and their frquency (taken from 25 specific prescriptions) of uses in percentages in the following table are listed below:

Table 2: Drugs which are used in common cold

Prescribed drugs	frequency	% of frequency
Cetrizine dihydrochloride	4	9.09%
Domperidone melate	6	13.6%
Fexophenadine hcl	2	4.54%
Dexomethorphan hcl	6	13.6%
Bromazepam	2	4.54%
Esomeprazole	2	4.54%
Oxymetazoline hcl	2	4.54%
Phenobarbitone	2	4.54%
Montelukast sodium	4	9.09%
Paracetamol	4	9.09%
Azithromycin	8	18.18%
Pheniramine melate	2	4.54%

The given information of particular drugs have been categorized according to thier mechanism of action.The total percentages for all prescribed group of drugs are listed below-

Table 3: Types of Drugs which are used in common cold

Name of the group of drugs	No. of drugs prescribed	Percentages of prescribed drugs
Antibiotic	8	11.76%
Antihistamine	18	28.12%
Bronchodilator	2	3.125%

Prescription pattern analysis of Physicians in selected area for most occurring diseases

Leuketerine receptor antagonist	2	3.125%
Cough preparation	4	6.25%
Nasal decongestant	8	11.76%
NSAID	4	6.25%
Antidepressent	8	11.76%
Antiulcerant	2	3.125%
Vitamin	4	6.25%
Others (antiemetic)	8	11.76%

Fig 2: Percentage of group of drugs on Common Cold

Asthma

All the prescribed drugs and their frquency (taken from 40 specific prescriptions) of uses in percentages in the following table are listed below:
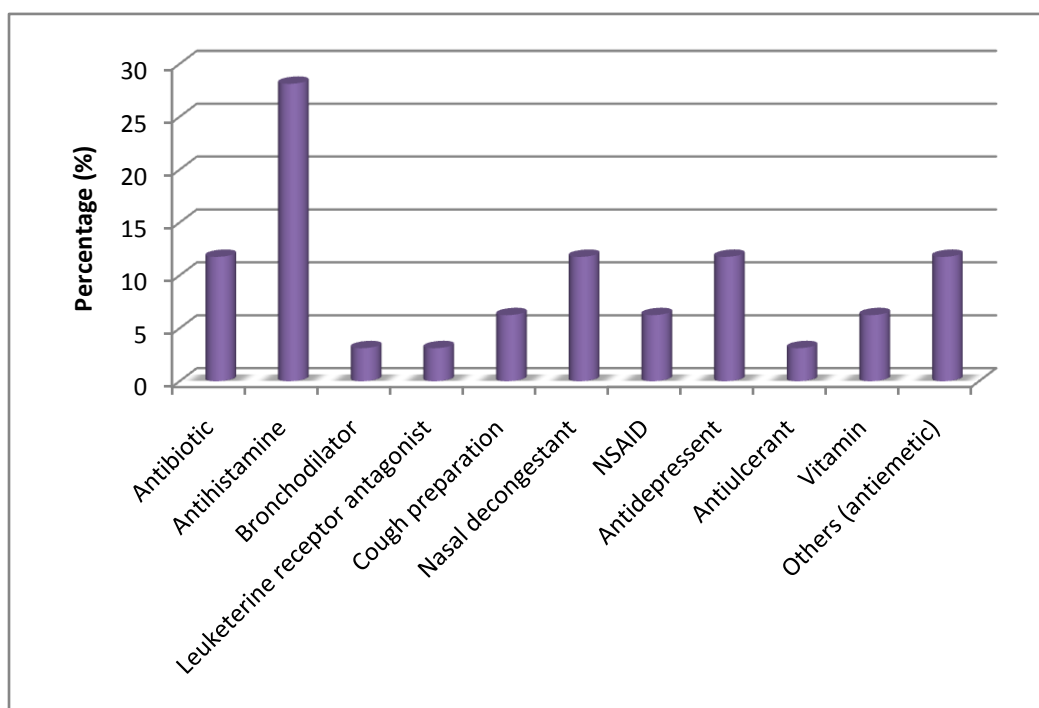
Table 4: Drugs which are used in Asthma

Prescribed Drugs	Frequency	% of Frequency
Salbutamol	12	11.00 %
Azithromycin	8	7.33%
Cefixime Hcl	8	7.33%
Levofloxacin	6	5.50%
Prednisolone	8	7.33%
Pantaprazole	2	1.83%
Domperidone	6	5.50%
Amitriptyline	2	1.83%
Cetrizine	2	1.83%
Cephradine	2	1.83%
Pizotifen	2	1.83%
Xylometazoline	2	1.83%
Clonazepam	2	1.83%
Fluconazole	2	1.83%
Montelukast sodium	8	7.33%
Theophyline sodium	7	6.42%
Amoxycillin	2	1.83%
Salmeterol	6	5.50%
Paracetamol	2	1.83%
Ketotifen fumerate	4	1.83%
Diazepam	2	3.66%
Ambroxol Hcl	6	5.50%
Salmeterol	6	5.50%
zolmitriptan	2	1.83%

Prescription pattern analysis of Physicians in selected area for most occurring diseases

The given information of particular drugs have been categorized according to thier mechanism of action.The total percentages for all prescribed group of drugs are listed below-

Table 5: Types of Drugs which are used in Asthma

Name of the group of drugs	No . of drugs prescribed	Percentages of prescribed drugs
Antibiotic	26	21.8%
Antihistamine	20	16.8%
Bronchodilator	25	21.0%
Leukoterine receptor antagonist	8	6.72%
Nasal decongestant	2	1.68%
NSAID	2	1.68%
Antidepressent	4	3.36%
Antiulcerant	2	1.68%
Cough preparation	6	5.04%
Corticosteroid	14	11.7%
Others	10	8.40%

Fig 3: Percentage of group of drugs on Asthma

Prescription pattern analysis of Physicians in selected area for most occurring diseases

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Bronchitis

All the prescribed drugs and their frquency (taken from 12 specific prescriptions) of uses in percentages in the following table are listed below:
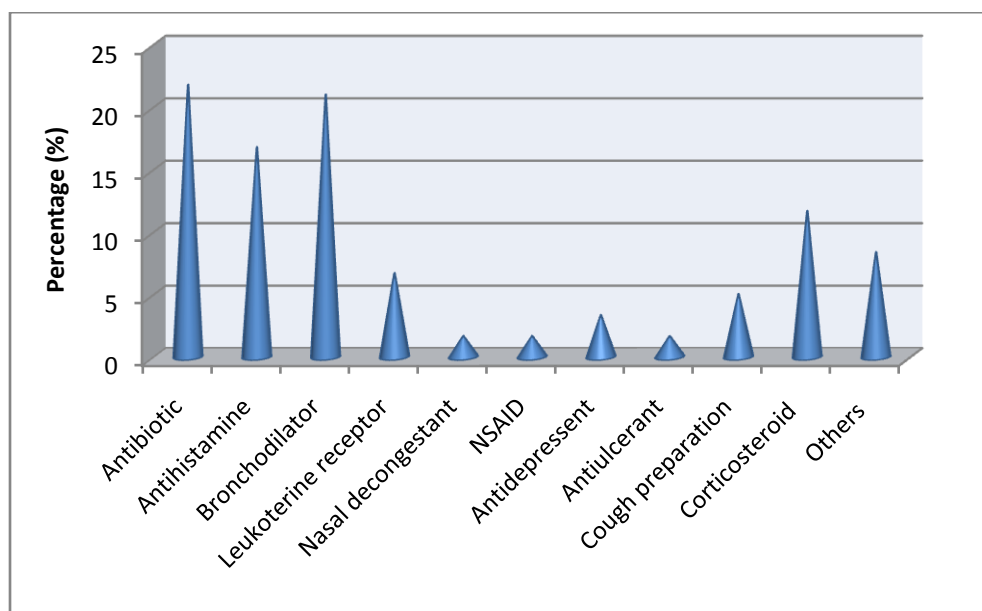
Table 6: Drugs which are used in Bronchitis

Prescribed drugs	frequency	% of frequency
Paracetamol	4	16.67%
Prednisolone	2	8.33%
Cefaclor	2	8.33%
Salbutamol	4	16.67%
Cefixime	2	8.33%
Xylometazoline Hcl	2	8.33%
Theophyline sodium	2	8.33%
Oxymetazoline Hcl	2	8.33%
Cefuroxime	2	8.33%
Riboflavin	2	8.33%

The given information of particular drugs have been categorized according to thier mechanism of action.The total percentages for all prescribed group of drugs are listed below-

Table 7: Types of Drugs which are used in Bronchitis

Name of the group of drugs	No . of drugs prescribed	Percentages of prescribed drugs
Antibiotic	6	25%
Bronchodilator	6	25%
Nasal decongestant	4	16.6%
NSAID	4	16.6%
Corticosteroid	2	8.33%
vitamin	2	8.33%

Fig 4: Percentage of group of drugs on Bronchitis

Pneumonia

All the prescribed drugs and their frquency (taken from 5 specific prescriptions) of uses in percentages in the following table are listed below:
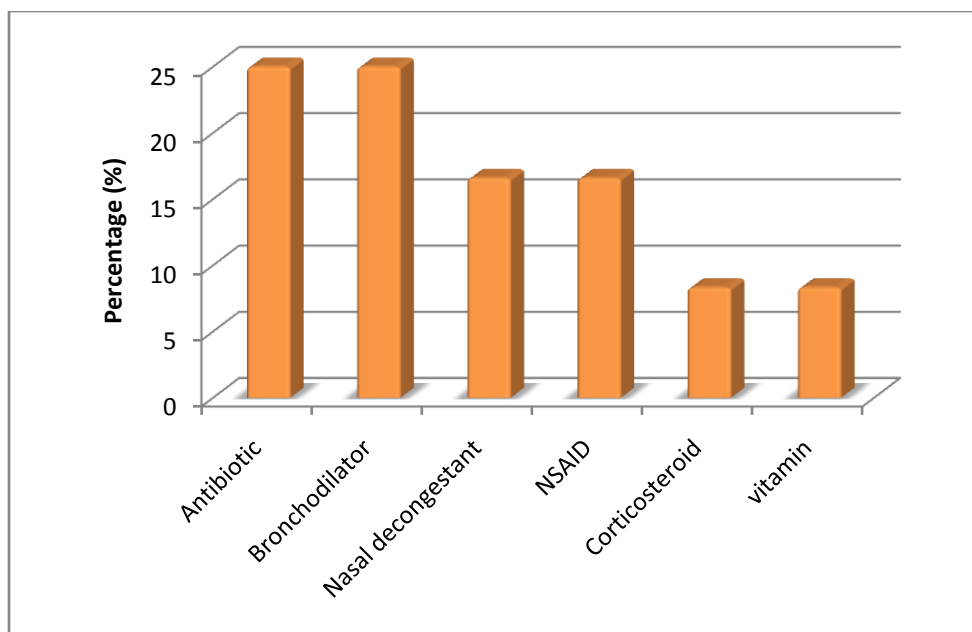
Table 8: Drugs which are used in Pneumonia

Prescribed drugs	Frequency	% of frequency
Paracetamol	4	9.30%
Prednisolone	4	9.30%
Diclofenac sodium	2	4.65%
Fluticason	2	4.65%
Azithromycin	2	4.65%
Ambroxol Hcl	3	6.97%
Salbutamol	6	4.65%
Montelukast sodium	2	4.65%
Fexofenadine Hcl	2	4.65%
Levofloxacine	2	4.65%
Domperidone	2	4.65%
Dexamethasone	4	9.30%
Oxymetazoline	2	4.65%
ceftriaxone	4	9.30%
Diphenhydramine Hcl	2	4.65%

Prescription pattern analysis of Physicians in selected area for most occurring diseases

The given information of particular drugs have been categorized according to thier mechanism of action.The total percentages for all prescribed group of drugs are listed below-

Table 9: Types of Drugs which are used in Pneumonia

Name of the group of drugs	No . of drugs prescribed	Percentages of prescribed drugs
Antibiotic	8	20 %
Antihistamine	4	10%
Bronchodialator	6	15%
Leukoterine receptor antagonist	2	5%
Cough preparation	2	5%
Nasal decongestant	2	5%
NSAID	4	10%
Corticosteroid	10	2.5%
Others (Antiemetic)	2	5%

Fig 5: Percentage of group of drugs on Pneumonia

Cough

All the prescribed drugs and their frquency (taken from 10 specific prescriptions) of uses in percentages in the following table are listed below:
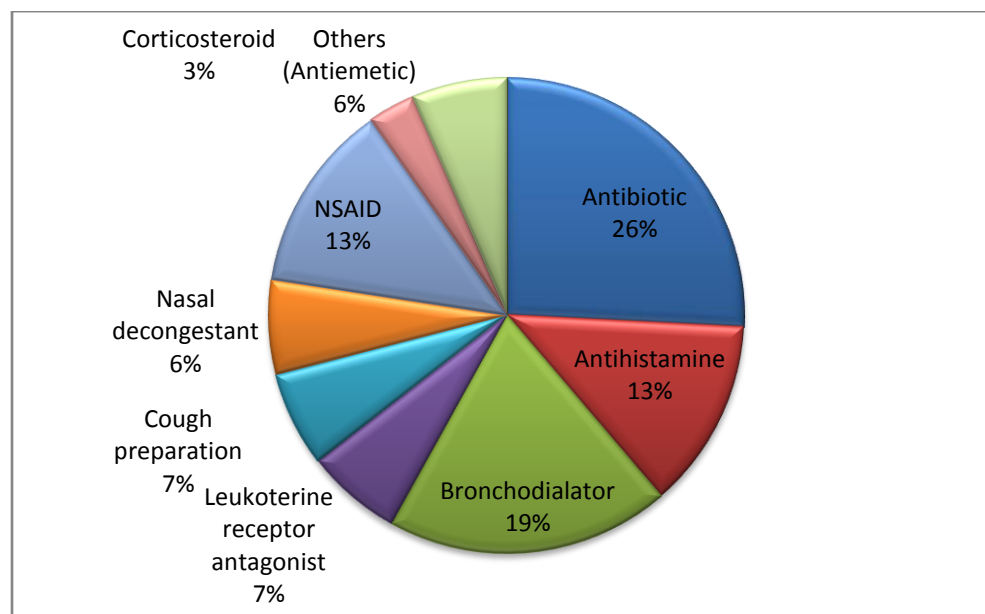
Table 10: Drugs which are used in Pneumonia

Prescribed drugs	Frequency	% of frequency
Salbutamol	2	14.29%
Cefixime	2	14.29%
Folic acid	2	14.29%
Azithromycin	2	14.29%
Vitamin B complex	6	42.86%

The given information of particular drugs have been categorized according to thier mechanism of action.The total percentages for all prescribed group of drugs are listed below-

Table 11: Types of Drugs which are used in cough

Name of the group of drugs	No . of drugs prescribed	Percentages of prescribed drugs
Antibiotic	4	28.57%
Bronchodialator	2	14.29%
vitamin	8	57.14%

Fig 6: Percentage of group of drugs on Cough

Alimentary Tract Disorders

Peptic ulcer

All the prescribed drugs and their frquency (taken from 28 specific prescriptions) of uses in percentages in the following table are listed below:
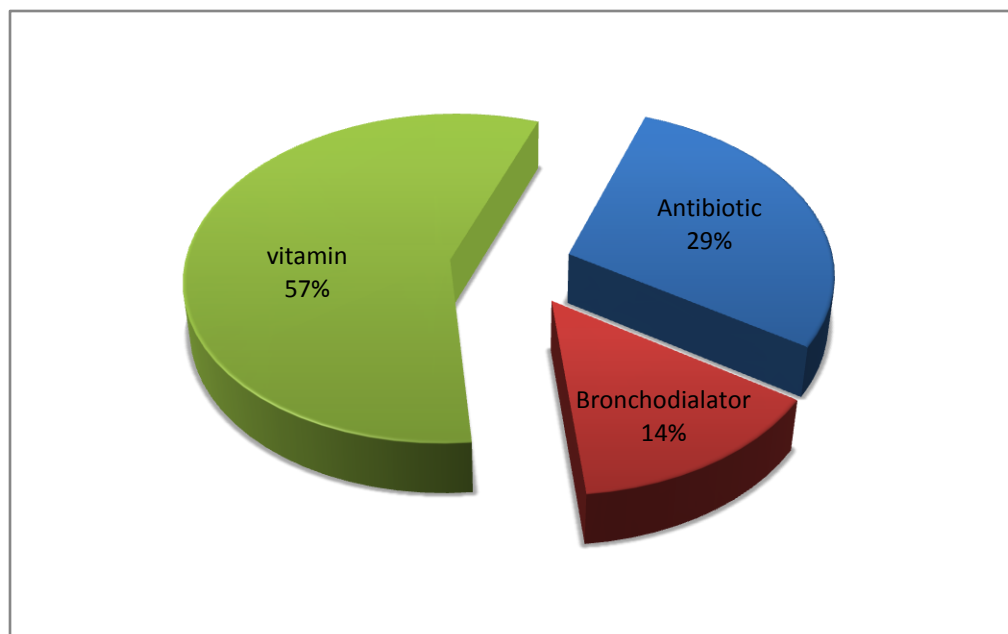
Table 12: Drugs which are used in Pneumonia

Prescribed Drugs	Frequency	% of Frequency
omeprazole	6	28.57%
Rabeprazole	2	9.52%
esomeprazole	2	9.52%
pantoprazole	3	14.28%
Antacid	2	14.28%
Ranitidine	2	14.28%
Domperidone	4	19.04%

Table 13: Types of Drugs which are used in Peptic ulcer

Name of the group of drugs	No . of drugs prescribed	Percentages of prescribed drugs
PPI	13	61.9%
H2-blocker	2	9.52%
Acid neutrilizer	2	9.52%
Antiemetic	4	19.04%

Fig 7: Percentage of group of drugs on peptic ulcer

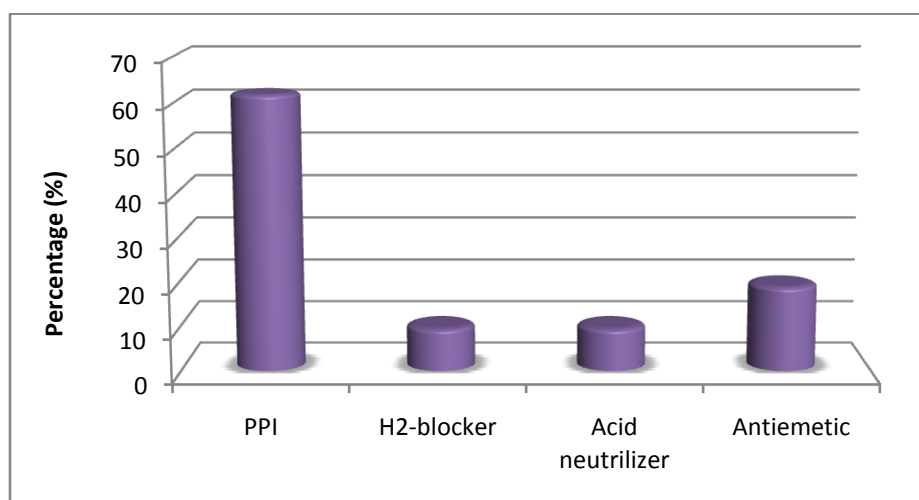Prescription pattern analysis of Physicians in selected area for most occurring diseases

Diarrhea

All the prescribed drugs and their frquency (taken from 10 specific prescriptions) of uses in percentages in the following table are listed below:

Table 14: Drugs which are used in Diarrhea

Prescribed Drugs	Frequency	% of Frequency
ORS	6	37.5%
Ciprofloxacin	4	25%
Azithromycin	2	12.5%
Metronidazole	2	12.5%
Tetracycline	2	12.5%

Table 15: Types of Drugs which are used in Diarrhea

Name of the group of drugs	No . of drugs prescribed	Percentages of prescribed drugs
Saline	6	37.5%
Antibiotic	10	62.5%

Fig 8: Percentage of group of drugs on Diarrhea

Prescription pattern analysis of Physicians in selected area for most occurring diseases
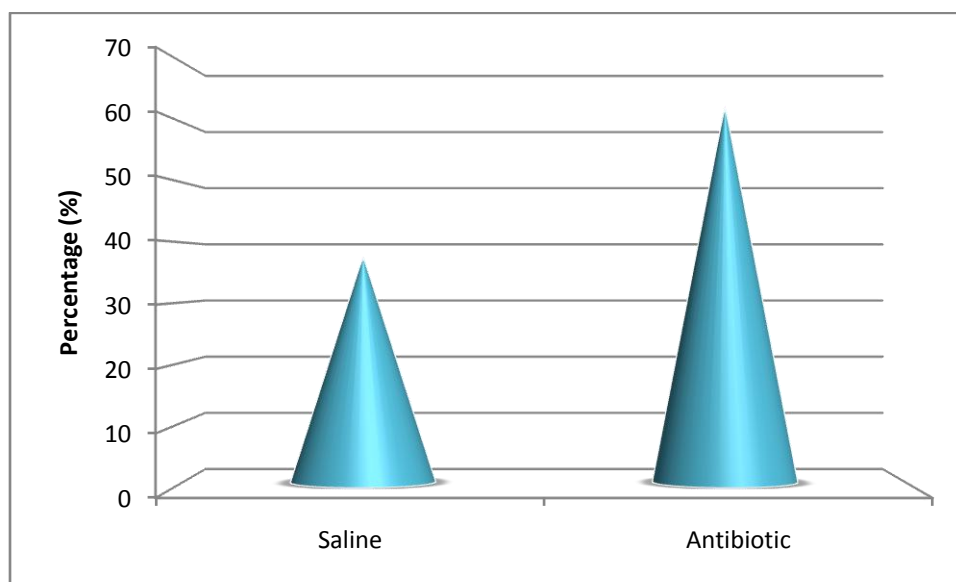
Constipation

All the prescribed drugs and their frquency (taken from 32 specific prescriptions) of uses in percentages in the following table are listed below:

Table 16: Drugs which are used in Constipation

Prescribed Drugs	Frequency	% of Frequency
Ispaghula hask	4	40%
Magnesium hydroxide	2	20%
lactulose	4	40%

Table 17: Types of Drugs which are used in Constipation

Name of the group of drugs	No . of drugs prescribed	Percentages of prescribed drugs
Laxative	6	60%
Ispaghula	4	40%

Fig 9: Percentage of group of drugs on Constipation

Prescription pattern analysis of Physicians in selected area for most occurring diseases
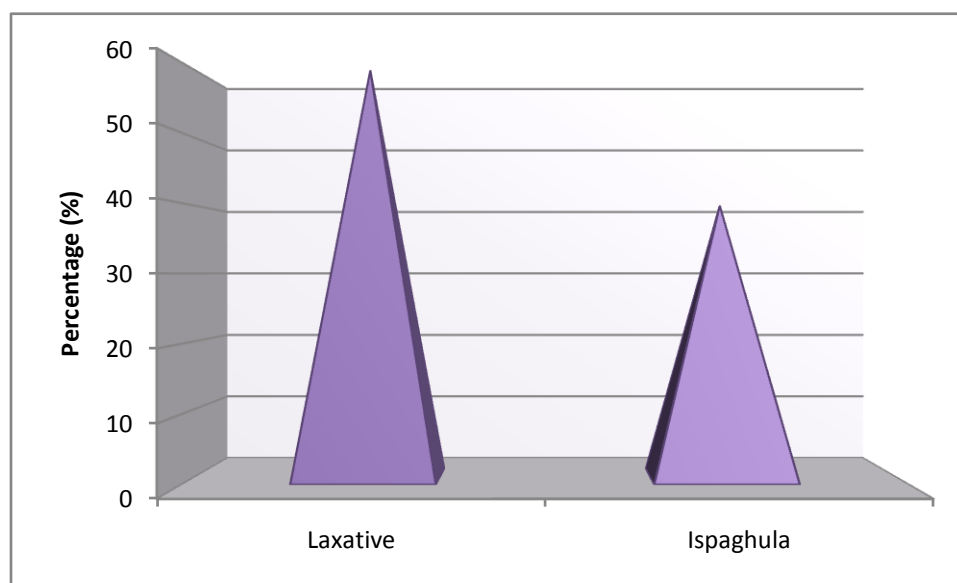
Irritable bowel syndrome (IBS)

All the prescribed drugs and their frquency (taken from 15 specific prescriptions) of uses in percentages in the following table are listed below:

Table 18: Drugs which are used in IBS

Prescribed Drugs	Frequency	% of Frequency
Isphagula husk	4	28.57%
Bisacodyl	2	14.28%
Lactulose	4	28.57%
Mebeverine	2	14.28%
Loperamide	2	14.28%

Table 19: Types of Drugs which are used in IBS

Prescribed Drugs	Frequency	Percentages of prescribed drugs
Isphagula	4	28.57%
Laxatives	10	71.4%

Fig 10: Percentage of group of drugs on Irritable bowel syndrom

Prescription pattern analysis of Physicians in selected area for most occurring diseases
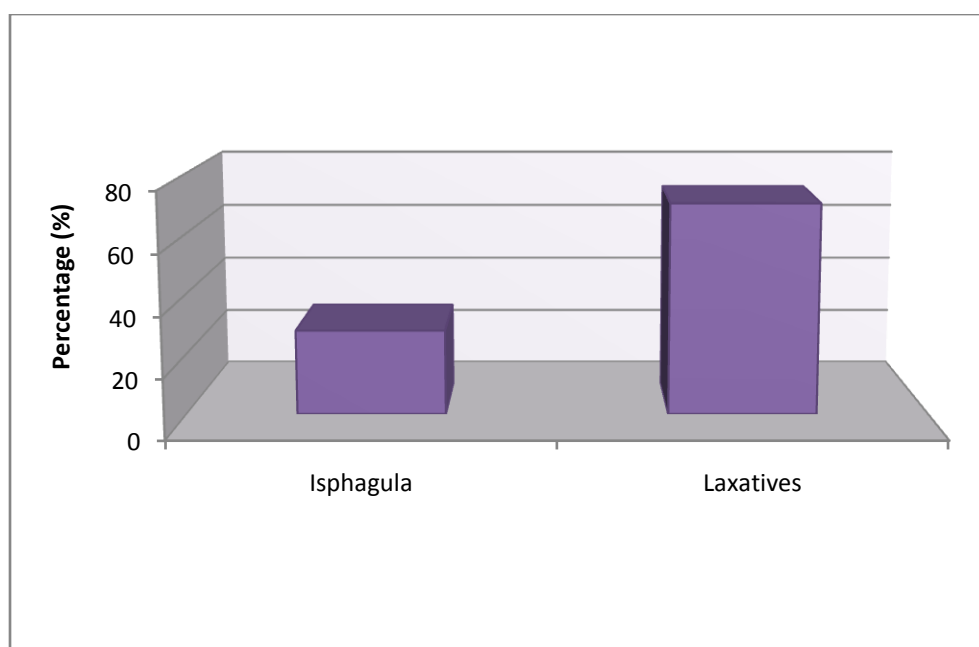
Cardiovascular Disorders

Myocardial infarction

All the prescribed drugs and their frquency (taken from 25 specific prescriptions) of uses in percentages in the following table are listed below:

Table 20: Drugs which are used in Myocardial infarction

Prescribed Drugs	Frequency	% of Frequency
Enalapril	2	8.34%
Metoprolol	2	8.34%
Atenolol	4	16.67%
Bisprolol	2	8.34%
Morphine	2	8.34%
Nitroglycerine	4	16.67%
Ramipril	2	8.34%
Lisinopril	2	8.34%
Clopidogrel	4	16.67%

Table 21:Types of Drugs which are used in Myocardial infarction

Prescribed Drugs	Frequency	Percentages of prescribed drugs
Beta blocker	10	38.46%
ACE- inhibitor	6	23.07%
Analgesic drug	2	7.69%
Antiplatelet	4	15.38%
Nitrates	4	15.38%

Prescription pattern analysis of Physicians in selected area for most occurring diseases

Fig 11: Percentage of group of drugs on Myocardial infarction

Angina pectoris

All the prescribed drugs and their frquency (taken from 20 specific prescriptions) of uses in percentages in the following table are listed below:
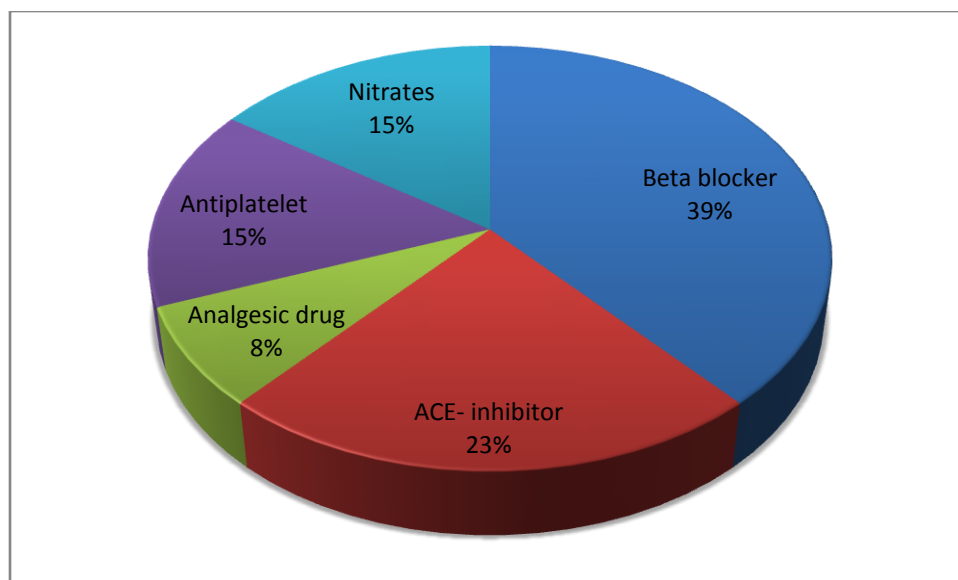
Table 22: Drugs which are used in Angina pectoris

Prescribed Drugs	Frequency	% of Frequency
Aspirin	4	20
Metoprolol	2	10
Atenolol	2	10
Bisprolol	2	10
Isosorbide mononitrate	2	10
Nitroglycerine	4	20
Amlodipine	4	20

Table 23: Types of Drugs which are used in Angina pectoris

Prescribed Drugs	Frequency	Percentages of prescribed drugs
Beta blocker	6	30%
Ca2+ antagonist	4	20%
Antiplatelet	4	20%
Nitrates	6	30%

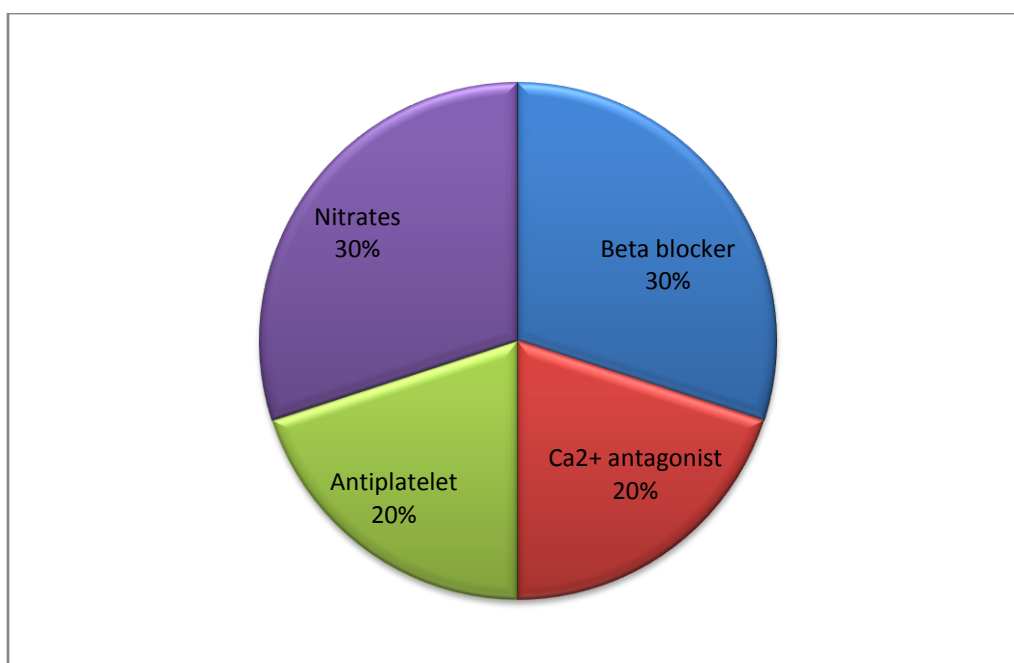**Fig 12: Percentage of group of drugs on Angina pectoris**

Hypertension

All the prescribed drugs and their frquency (taken from 25 specific prescriptions) of uses in percentages in the following table are listed below:

Table 24: Drugs which are used in Hypertension

Prescribed Drugs	Frequency	% of Frequency
Metoprolol	2	8.34%
Atenolol	4	16.67%
Bisprolol	2	8.34%
Aspirin	4	16.67%
Atorvastatin	6	25%
Rosuvastatin	2	8.34%
Ramipril	2	8.34%
Lisinopril	2	8.34%

Table 25: Types of Drugs which are used in Hypertension

Prescribed Drugs	Frequency	Percentages of prescribed drugs
Beta blocker	8	33.34%
ACE- inhibitor	4	16.67%
Statins	8	33.34%
Antiplatelet	4	16.67%

Fig 13: Percentage of group of drugs on Hypertension
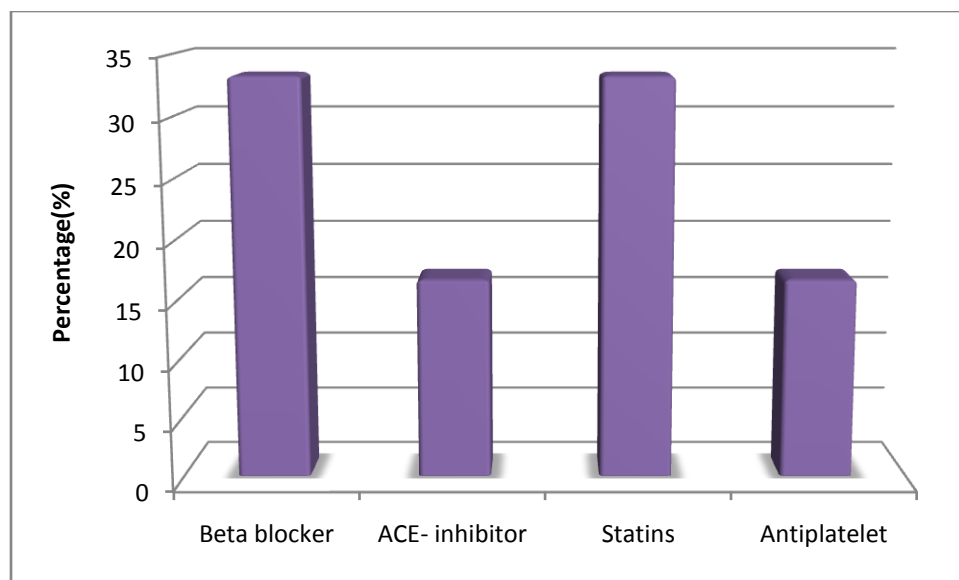
Ischemic Heart Disease(IHD)

All the prescribed drugs and their frquency (taken from 12 specific prescriptions) of uses in percentages in the following table are listed below:

Table 26: Drugs which are used in Ischemic Heart Disease

Prescribed Drugs	Frequency	% of Frequency
Clopidogrel bisulphate	15	20.54%
Glyceryl trinitrate	12	16.43%
Trimetazidine dihydrochloride	8	10.95%
Metoprolol tartrate	10	13.69%
Atorvastatin	9	12.32%
Carvedilol	7	9.58%
Digoxin	12	16.43%

The given information of particular drugs have been categorized according to thier mechanism of action.The total percentages for all prescribed group of drugs are listed below-

Table 27: Types of Drugs which are used in IHD

Prescribed Drugs	Frequency	Percentages of prescribed drugs
Antiplatelet	15	20.54%
Beta blocker	10	13.69%
Beta-adrenoceptor blocker	7	9.58%
Statins	9	12.32%
Nitrates	12	16.43%
Anti-ischaemic drugs	8	10.95%
Positive Inotropic drugs	12	16.43%
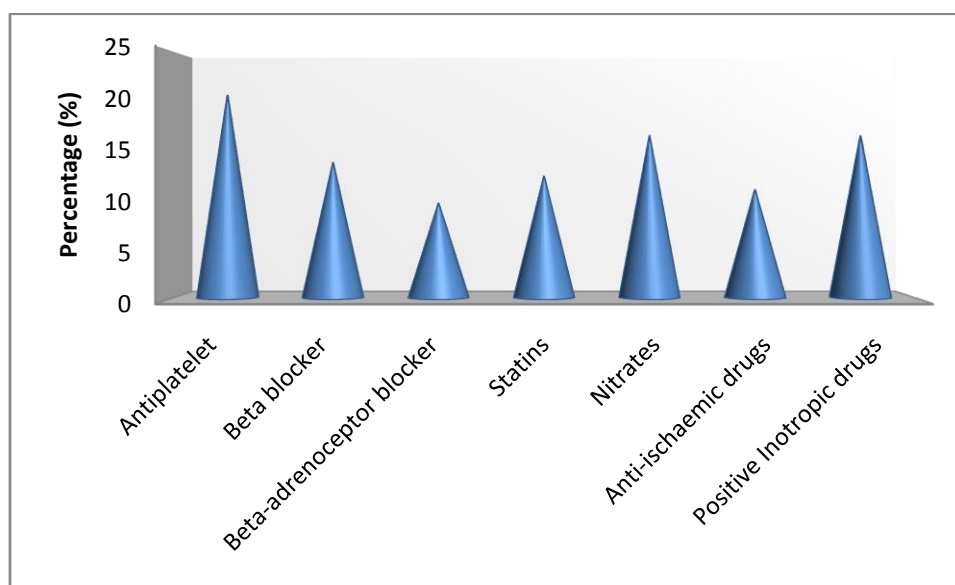
Fig 14: Percentage of group of drugs on Ischemic Heart Disease

Chapter Five

Discussion

Discussion

Drugs prescribed in common cold

From the present study, among 25 prescriptions of given group of drugs, percentage of Antibiotic is 11.76%, Antihistamine 28.12%, Bronchodilator 3.125%, Leuketerine receptor antagonist 3.125% cough preparation 6.25%, Nasal decongestant11.76%, NSAID 6.25%,Antidepressent 11.76%, Antiulcerent 3.125%,Vitamin 6.25% & others 11.76%.

Drugs prescribed in Asthma

From this study, it is seen that among 40 prescriptons,percentage of antibiotic 21.8%, Antihistamine 16.8%,Bronchodilator 21%,LTA 6.72%,Nasal decongestant 1.68%,NSAID 1.68%,Antideressent3.36%,Antiulcerent 1.68%,Cough preparation 5.04%,corticosteroid 11.7%,others drug 8.40 % prescribed.

Drugs prescribed in Bronchitis

From the study we have found that among 12 prescriptions,Antibiotic 25%,Bronchodilator 25%,Nasal decongestant 16.6%,NSAID 16.6%,corticosteroid 8.33%,vitamin 8.33%.

Drugs prescribed in Pneumonia

From the current study it is found that among 5 prescriptions,Antibiotic 20%,Antihistamine 10%,Bronchodilator15%,LRA 5%, cough preparartion 5%,Nasal decongestant 5%,NSAID 10%, corticosteroid2.5% and others drug 5%.

Drugs prescribed in Cough

From this study,it is seen that among 10 prescriptons,percentage of antibiotic 28.57%,Bronchodilator 14.29%,vitamin 57.14%.

Drugs prescribed in Peptic Ulcer

From the study we have found that among 28 prescriptions, PPI 61.9%,H2-blocker 9.52%,Acid neutrilizer 9.52%,Antiemetic 19.04% prescribed.

Drugs prescribed in Diarrhea

From this study,it is seen that among 10 prescriptons,Saline 37.5% and antibiotic 62.5% prescribed.

Drugs prescribed in Constipation

From this study,it is seen that among 32 prescriptons, Laxative 60% and ispaghula 40% prescribed.

Drugs prescribed in Irritable bowel syndrome

From the study we have found that among 15 prescriptions, Ispaghula 28.57% and Laxatives prescribed 71.4%.

Drugs prescribed in Myocardial infarction

From the present study, among 25 prescriptions of given group of drugs, Beta blocker 38.46%,ACE-inhibitor 23.07%,Analgesic drug 7.69%,Anti-platelet 15.38% and nitrates 15.38% prescribed.

Drugs prescribed in Angina Pectoris

From this study,it is seen that among 20 prescriptons,Beta blocker 30%,calcium Antagonist 20%,Antiplatelet 20% and Nitrates 30% prescribed.

Drugs prescribed in Hypertension

From the study we have found that among 25 prescriptions,beta blocker 33.34%,ACE inhibitor 16.67%, statins 33.34% and Anti platelet 16.67% prescribed.

Drugs prescribed in Ischemic Heart Disease(IHD)

From the current study it is found that among 12 prescriptions, Antiplatelet 20.54%,Beta blocker 13.69%, Beta adrenoreceptor blocker 9.58%, Statins 12.32%,Nitrates 16.43%, Anti-ischaemic drugs 10.95% and Positive Inotropic drugs 16.43% prescribed.

Chapter Six

Conclusion

Conclusion

The study has been conducted on the basis of prescription pttern of physician in Dhaka city.The leading causes of deaths in Bangladesh people are mainly dependent on Respiratory,Alimentary and cardiovascular diseases.Combination theapy pattern for the treatment of those particular diseases are stated in this study.Some other kinds of drugs are prescribed for Respiratory disorder such as anti ulcerent,antidepressent,multivitamins,antiemetic etc. May have little importance in treatment.Physician should be careful when he/she prescribe and try to avoid prescribing unnecessary drugs which may cause harm to the patient.Cardiovascular diseases are increasing in our country at a rapid rate.In Bangladesh deaths by coronary heart disease are 17.11% & deaths by stroke are 8.57%.It should be prevented healthy diet, choosing a diet rich in fruits and vegetables, maintaining a healthy body weight, avoiding obesity, smoking and avoiding foods that are high in fat, sugar and salt. Even though, analysis of cardiovascular drugs use offers awareness into the actual prescribing practice in our country. Disorders of the GIT include gastritis and ulcers that are associated with infection of Helicobacter pylori, intolerance to certain nutrients, such as lactose, celiac disease and malabsorption. Functional gastrointestinal disorders are characterised by persisting gastrointestinal symptoms in the absence of any identifiable underlying structural or biochemical explanation. They are conventionally treated with drugs or with psychological treatments. However this study will be very much helpful for pharmaceutical companies of our country as there is a huge study of predominant companies in the sector of particular diseases. This study will also determine the further evaluation of mentioned drugs utilization in Bangladesh.

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