

Health care cost of gastritis-a cost of illness study

N. Nagappa^{1*}, Naveen Sharma², Ajay Sharma³, Krithi Krisnan⁴, Alisiya M Thomas⁵

¹⁻³Amity Institute of Pharmacy, Amity University, AUMP, Gwalior, Madhya Pradesh, ⁴⁻⁵Dept. Pharmacy Practice, CG Hospital, Davengere, Karnataka, India

***Corresponding Author: N. Nagappa**

Email: anantha1232000@gmail.com

Abstract

The cost of illness of any disease is an essential assessment procedure in medical care. Health care decision makers ease to make plan for health care, measure and compare the economic burden to society. In this study, collected some data from the patients those who got gastritis problem and they were expend their money as medical and non-medical cost and also lost jobs therefore they were facing monitory loss. Studies of 40 patients were shown economic burden on the society. The object of this work is to collect the data of gastritis suffered people, concerning their medical and nonmedical expenses which affect the life style of the patients and the impact of the cost-of-illness on developed and under-developed countries. With highly concerned about the economical perspective, societal and economic impacts must associated with patients life and it is necessary to identify different parameters that can reduce the burden of diseases. The cost-of-illness study on gastritis is very important now a days because many of the middle class individuals has been suffering from this problem and it is good to evaluate different technique in health medical care. For the measuring and comparing the burden of economics in such type of studied can help to health care professional to make policies for the society.

Keywords: Gastritis, Economic burden, Direct and indirect cost.

Introduction

Cost of illness of any diseases on the individual or society known as burden of disease. The phase of cost of illness can vary from the prevalence or incidence of disease in health status and worth of life, and financial aspects including direct and indirect cost of disease that result from early death, disability or injury due to subsequent disease. Precise knowledge about cost of illness is vital and helps us to prepare the health care policies and assign health care resources in accordance with budget constraints in order to achieve policy efficiency. It is important to know how the costs are defined, classified and considered in the cost of illness study. Gastritis is the inflammation of gastric mucosa. It can be acute and characterized by sudden severe attack of symptoms or chronic, which is often silent and develops slowly.¹ The common symptoms are epigastric pain, nausea, vomiting, bloating, anorexia, and heartburn. Gastritis may produce many of complications include bleeding, gastric ulcers, and gastric tumors. Gastritis may occur due to autoimmune disorder in which RBC decrease due to deficiency of vitamin B₁₂ which leads to pernicious anemia.² The

major cause of gastritis may be helicobacter pylori and overuse of NSAIDs. Helicobacter pylori infection prevalence is higher in developing countries and huge number of factors including geography, age, strain virulence, environmental factors, and socio-economic status are common for pylori infection. It is gram-negative bacteria that found the human gastric epithelium and represent one of the most common infections affect human all over the world.³ Another common cause is overuse of NSAIDs, although, there are many other causes such as parasitic, bacterial and viral infections, some drugs, allergic reactions, bile reflux, stress reaction and food poisonings. The economic costs of illness of gastritis continue to play an important role in decision making in the health sector. Economic costs on gastritis are measured in terms of direct and indirect costs. Some costs are the present value of future earnings lost by people. Other than the cost of illness people lost unmeasurable things in life like quality of life, lack of participation in social activity, personal relationship.⁴ This is the different perspectives of the cost of illness which affect the health care system, business, the government, and

participation in families welfare. These perspective covers the maximum components of cost and generally the most preferred.⁵ Gastritis is most common disorder in the world.⁶ It is a leading cause of financial loss and identified as a major problem to globalization. The total costing of an illness is a useful estimation tool for national and international health policy decision making.⁷

The data have been collected from the patients those who got gastritis problem and they were expend their money as medical and non-medical cost and also lost jobs therefore they were facing monetary loss. Studies of 40 patients were shown economic burden on the society.

Approach of a cost of illness

The basic approach of cost of illness is to assess the economic burden on the society and what the initiative can be taken by the health care professionals to resolve this costing which have disturb the whole life of people.⁸ For the evaluation of cost of illness, this is the good opportunities for communicating whole information to the policy maker regarding specific disease.⁹

The approach may be retrospective or prospective, in which relevant components may be from previous records; those are less expensive and less time consuming. But in prospective approach, components may be depend on collecting data from patients.¹⁰ WHO commonly use both studies but this is necessary to much debate must be organize among the economist and health care professionals.¹¹ The cost of illness studies are performed such as prevalence and incidence based. Specific period of disease in prevalence method is main base for estimation of cost of illness but in incidence based, estimate the life time cost from onset to cure.¹² Both methods are based on either prospective or retrospective way.¹³ The economic burden of chronic gastritis on patients, institutions and society in the form of direct and indirect costs is enormous world-wide. The prevalence of chronic gastritis is rising in alarming scale in India, which poses a major threat to clinical management, economic growth and social well-being of the patients.¹⁴

Materials and Methods

Methods

A prospective study was conducted at hospitals, Gwalior, India. The data of cost were collected from the records for a period of 6 months. The study was approved by the hospital committee prior to the study initiation. The chronic gastritis patients age greater than 18 years, either gender. A total of 40 patients were identified during ward rounds and reviewing of record during study period. The enrolled patients were from the day of admission until the day of discharge. Total direct costs include direct medical and non-medical costs were consider. The direct medical cost includes the medication costs, cost of laboratory investigations, cost of consultation and cost of hospitalization and the direct non-medical costs include the transportation cost to hospital and cost of food during the hospitalization. The indirect costs (i.e., productivity loss) were determined based on modified labor force, employment and earnings data based on job category for patients who were employed during the evaluation period. The costs of drugs, syringes, administration, extra nursing and medical care and any other invasive or non-invasive procedures along with laboratory tests were collected. Details of direct medical cost, direct non-medical cost and indirect cost were analyzed. From the data obtained, overall cost per gastritis patient as well as total cost of one months was calculated. All the costs data of Indian Rupee (INR)

Results

All the data were collected from the some patient those who have suffered from chronic gastritis, the patients those who got gastritis problem and they were expend their money as medical and non-medical cost and also lost jobs therefore they were facing monetary loss. Studies of 40 patients were shown economic burden on the society. A total of 40 patients were enrolled during the study period. The total costs were summarized in Table 1. The total medical costs of 40 patients were 96494.08 INR and nonmedical cost 51790 INR. Loss of income of the patient during the hospitalization was 106300 INR. The total burden on the patients as well as society was 251854.09 INR.

Table No. 1: Direct and indirect expenditure of patients during chronic gastritis.

Patient no	Medical cost	Non medical cost	Loss of income	Total
1	2920.71	3120	6000	12040.71
2	4741.88	1100	5000	10841.88
3	1850.5	3300	6000	11150.5
4	1286.42	3420	4000	8706.42
5	4862.25	250	5000	10112.25
6	1724.54	600	6000	8324.54
7	1851.10	750	1200	3801.1
8	1906.77	2100	3000	7006.77
9	1015.94	1450	1500	3965.94
10	1852.25	2000	4000	7852.25
11	4880.66	1200	3000	9080.66
12	2513	1800	2000	6313
13	1953.44	400	2000	4353.44
14	1792.78	500	4500	6792.78
15	1163.47	1350	600	3113.47
16	3006.06	1800	1100	5906.06
17	1672	1800	1100	4572
18	1672	700	300	2672
19	2420	600	1100	4120
20	8400	1900	3000	10600
21	2738.28	600	2000	5338.28
22	1150	500	2000	3650
23	2255.42	1500	2500	6255.42
24	1989.02	1300	3000	6289.02
25	2867.78	900	2800	6567.78
26	1688.56	700	1400	3788.56
27	2145.70	1500	2000	5645.7
28	1061.83	500	1100	2661.83
29	3005.58	1700	2000	6705.58
30	2248.90	850	4000	7098.9
31	1986.19	1200	2000	5186.9
32	1498.68	1000	4000	6498.68
33	2820.80	1350	3000	7170.80
34	1894.08	900	2000	4794.08
35	1085.70	600	2000	3655.7
36	1732.37	800	1500	4032.37
37	2555.32	1450	1000	5005.32
38	3396.93	1600	4000	8996.53
39	2774.19	1500	2000	6274.19
40	2112.98	1200	1600	4912.98
Total	96494.08	51790	106300	251854.09

Discussion

Our study results reveal that the medical cost of hospitalization, consultation and cost for other drugs were higher than the nonmedical cost and the cost of others like income per months were higher than the medical and nonmedical cost on gastritis treatment. The total health care costs were found to be higher in the patients who have chronic gastritis. In the present study, there was a positive relationship between increased costs of health care services with increased number of complications. The cost of illness studies are considered to be an important and essential measurement technique in health and medical sciences. By measuring and comparing the economic burden of disease to society, health care decision makers can benefit in setting up and prioritizing health care policies and interventions that they are supposed to implement. Using economic theories, this paper introduces a variety of study

Source of Funding

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Conflict of Interest

None.

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