

# Evaluation of Current Status of Tuberculosis at Chattogram in Bangladesh

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**Abstract**— Tuberculosis is a bacterial infection which cured very well by the appropriate treatment. In the current period, people more conscious regarding the disease of TB. Most of the people know that it is curable. A survey is continued about the TB disease in Chittagong Medical College Hospital and Chittagong General Hospital from 10<sup>th</sup> November 2019 to 15<sup>th</sup> February 2020. and contact to the TB patient about the disease and used drug. A questionnaire based survey about the 75 patients aged 11-80 years and collected their treatment data. Though TB is a dangerous disease, most of the patient about 83% patient express their opinion it is curable. In the severe condition most of the patient about 80% used Inj. Clamox. About 72% patient economic condition are low class and they came from rural area and their education level also low.

**Keywords**— Tuberculosis, Survey, Chittagong Medical College Hospital.

## I. INTRODUCTION

World Health Organization (WHO), estimated that one third of the world's population has been exposed to the tuberculosis pathogen (1). Tuberculosis (TB) continues to be a major cause of human suffering more than a century after its causative agent was discovered and more than six decades since effective treatments were developed. It infects a third of humanity and is a leading infectious cause of death worldwide, rivaling the impact of HIV/AIDS (2). Much of the difficulty faced by tuberculosis care and prevention efforts has been the issue of rapid and reliable diagnosis, with many techniques from 90 years ago, when Postgraduate Medical Journal was first published, still in use. Timely diagnosis and initiation of therapy are also affected by patient delay and health system delays. Patient delay is the interval that occurs even before seeing a provider. There remains a substantial delay from the time of onset of first symptoms until most patients first present for clinical evaluation (3) Patient delay has been associated with substance abuse, poverty, rural residence, less access to health care facilities, and little knowledge about TB (4). Even after first contact with the health care system, it still takes on average more than 3 weeks for tuberculosis to be microbiologically diagnosed, even in wealthy countries. Several factors are associated with delayed diagnosis once patients have presented for care. Tuberculosis, also known as TB, is a contagious bacterial infection that can be found nearly anywhere in the body, but is found most commonly in the lungs. This because the bacteria that is responsible for TB, Mycobacterium Tuberculosis, is transmitted through the air as it does not thrive on surfaces (5). Although TB has been discovered over 100 years ago, it is still one of diseases that cause the most deaths annually [10]. To get more insight why TB still exists at large scale to this, we must look at how TB works, where it is active and how it can be treated at the moment (6). Tuberculosis (TB) is generally acquired by inhaling small droplets from an infected person. Tuberculosis wards, historically, were used to quarantine those suffering from the illness, in a public health effort to protect the population (7). While TB generally attacks the lungs only, it can also present problems in the abdomen, the nervous system, the bones, and the glands. The actual bacteria in TB is called Mycobacterium tuberculosis (8). While it is transmitted through the air – leading to transmissions often between families and co-workers – the bacteria do not thrive on surfaces. This means that one cannot be infected through shaking hands or sharing foods and drinks (9).

## II. MATERIALS AND METHODS

**Type of Study:** It was descriptive type of cross sectional study with one step satisfaction.

**Place of Study:** The present study was carried out in the Medicine Department, of Chittagong Medical College, Chittagong General Hospital.

**Data Collection Period:** From 10<sup>th</sup> November 2019 to 15<sup>th</sup> February 2020.

**Sample and Sampling Technique:** Data of TB patient and test report were collected from Chittagong Medical College and General Hospital.

A Questionnaire was designed to collect the men and women of their characteristics of TB and its prevention. Collecting the filled up questionnaire and the data are filled up in the paper.

**Procedure of the Data Collection:**

**Survey Result of the TB Patient:** Data of 75 patients regarding TB were collected from Chittagong Medical College, Chittagong General Hospital. The Data shows the name, age, marital status, educational level socio –economic condition.

**Data Complication and Processing:** After complication of raw data, we stoned out and prepared a master table manually, keeping in view the objectives and variables.

Data Analysis and Report Writing: Data were processed with the help of MS Excel and MS Word.

III. RESULTS AND DISCUSSION

TB test is a diagnostic procedure that checks the condition of *Mycobacterium tuberculosis*. Although it is the preventive method.

TABLE 1: Causes for having TB Test.

Causes	Percent of distribution
Doctor's suggestion	58%
Sign and symptoms	27%
Willingly	15%

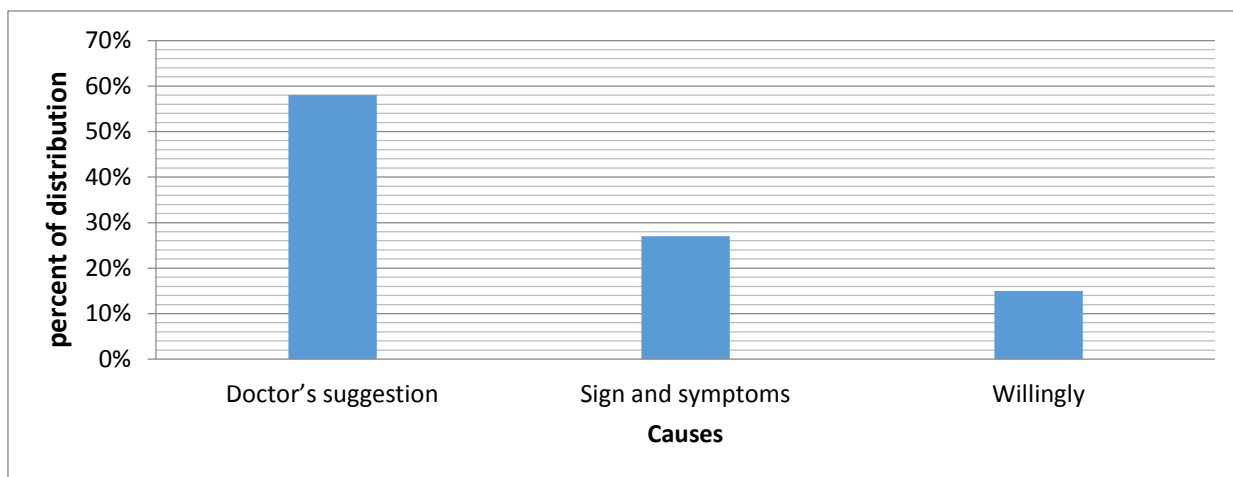


Figure 1: percentage of patient TB Test.

Comment: 58% people are coming to TB test after doctor suggestion then 27% are coming after sign and symptoms and 15% people are coming to willingly.

Result of Age Wise Patient History:

It shows that all of the ages of people come to contract in TB.

TABLE 2: Age wise distribution of the patient history.

Age	Number of patient
11 to 20	14%
21 to 30	33%
31 to 40	16%
41 to 50	12%
51 to 60	13%
61 to 80	10%

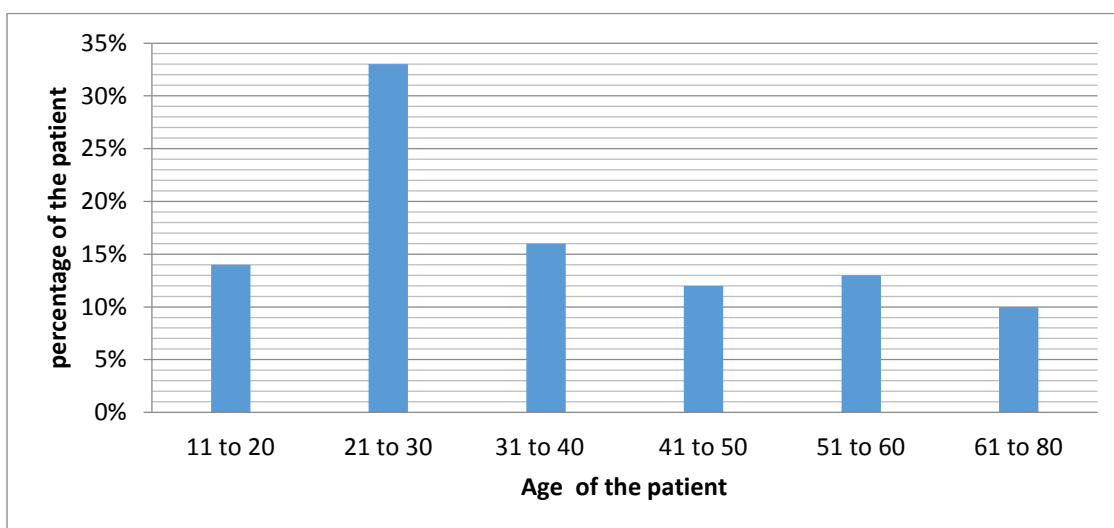


Figure 2: Chart of the Result of age wise patient history.

*Comment:* In these chart 25-30 Age patient are large number come to contract in TB and less is the of 61-80.

*Gender Wise Distribution Of Patients:*

In this survey we found a large number of male patient found among then female.

TABLE 3: Gender wise patient percentage history.

Gender wise patient	Percentage
Male	91%
Female	9%

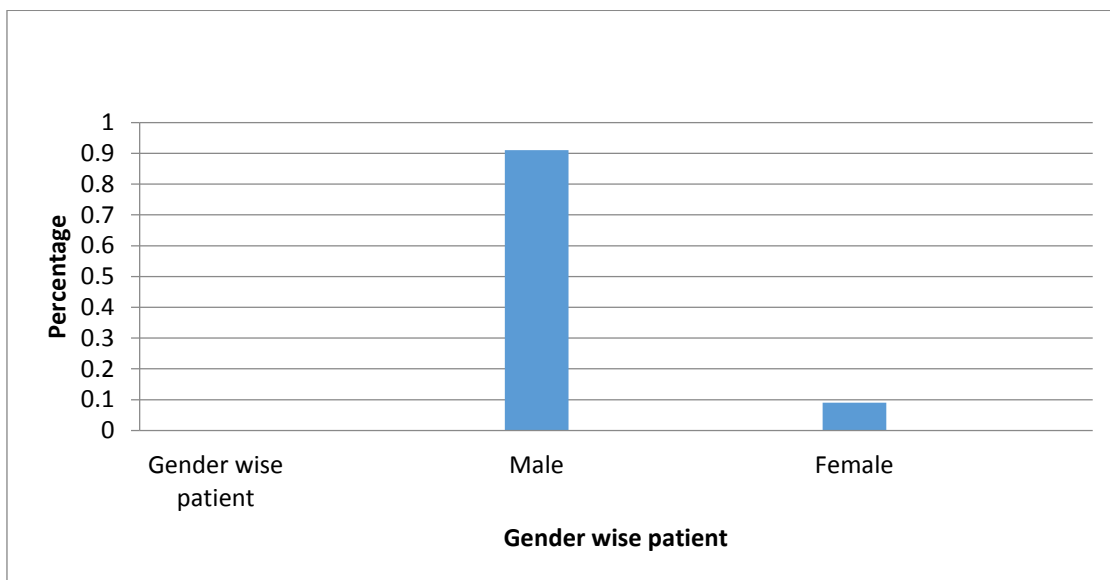


Figure 3: Chart for the gender wise patient history.

*Comment:* In these survey 91% patient are Male and 9% patient are Female.

*Disease Condition Opinion of the Patient:*

In these type most of the patient know, TB is curable disease.

TABLE 4: Disease condition opinion.

Type of disease	Percentage
Curable Disease	83%
Don't know	17%

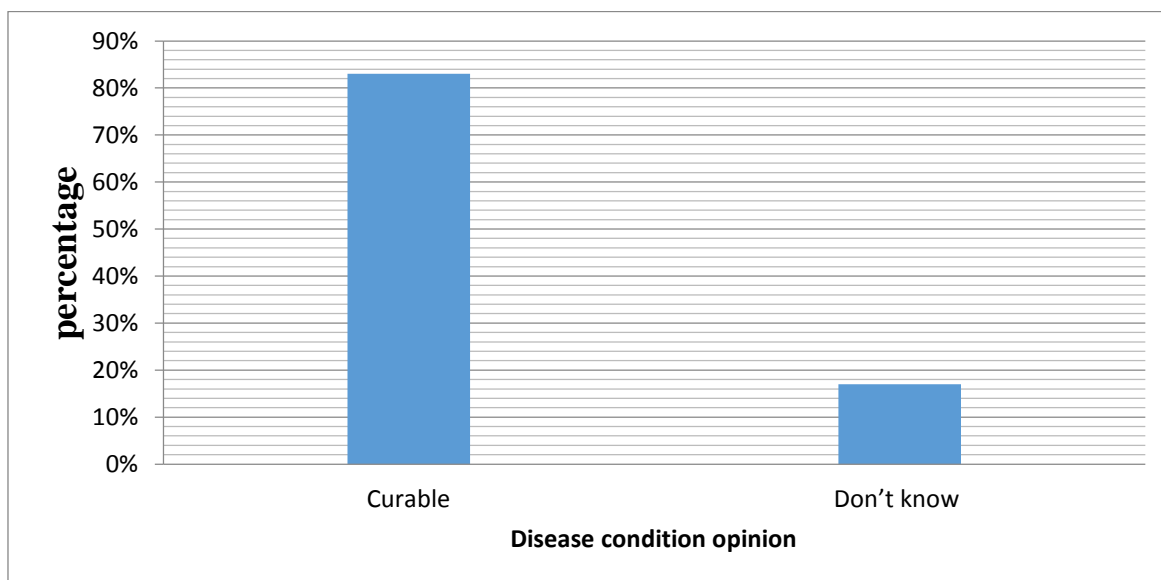


Figure 4: Chart for the disease condition opinion of the patient.

Comment: The number of 83% patient know TB is curable and 17% don't know it is curable.

Duration treatment of the Tb patient:

TABLE 5: Duration treatment of the TB patient.

Duration of treatment	Frequency	%
8 months	32	42
8-12 months	15	20
According to doctor suggestion	12	16
Until disease is Completely Cure	8	10.6
Don't know	8	10.6

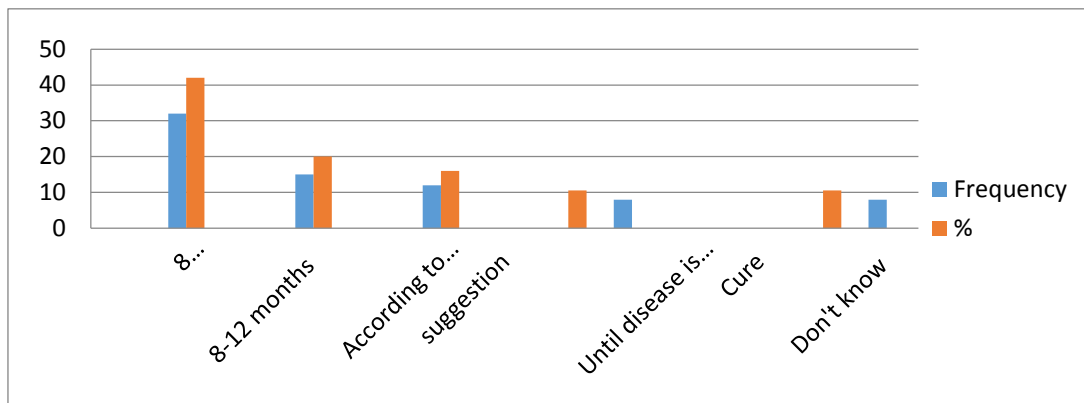


Figure 5: Chart for the treatment of the patient.

Most Commonly used Drug in TB disease:

TABLE 6: Used drug percentage for the patient.

Used Drug	Percentage
Inj. Clamox	80%
Tab. Moxaclav	20%

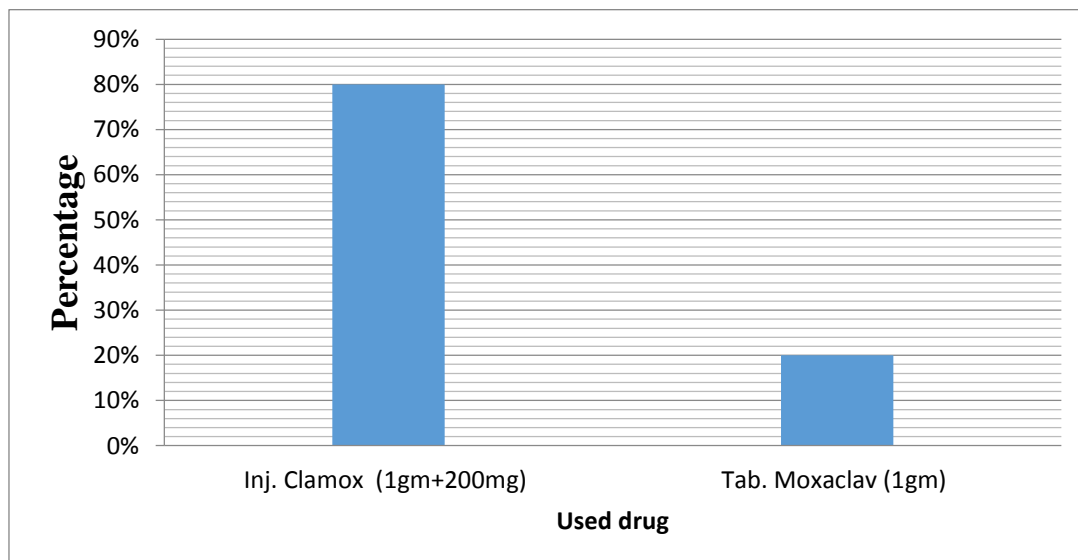


Figure 6: Chart for the most commonly used drug.

Comment: 80% patient used Inj. Clamox and 20% patient used Moxaclav tablet.

Level of Economic Condition of the Patient:

All classes of people are coming in to the CMCH.

TABLE 7: Economic condition of the patient percentage.

Level of Economic Condition	Percentage
Low	72 %
Middle	21%
Higher	9%

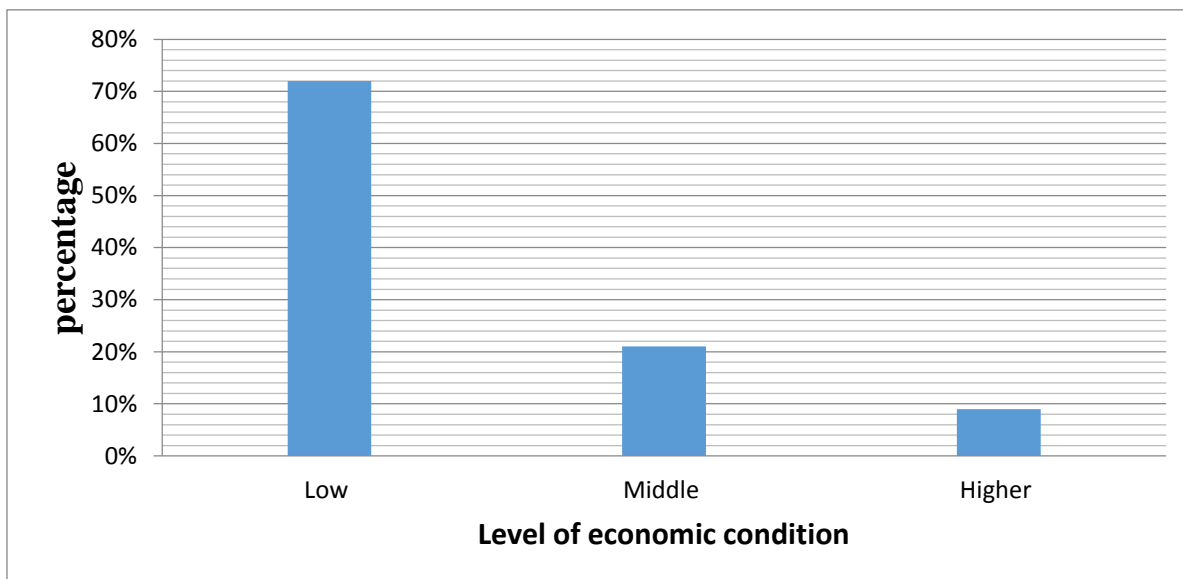


Figure 7: The chart of the patient economic history.

Comment: The economic condition of 72% people are low class, 21% people are middle class and 9% people are the higher class.

*Level of Education of the Patient:*

All classes of the people know to about the study and gather the knowledge almost of the patient.

TABLE 8: Qualification of the patient.

Level of education	Number of patient
Below of SSc	14
SSC	23
HSC	15
Hon's	16
None	7

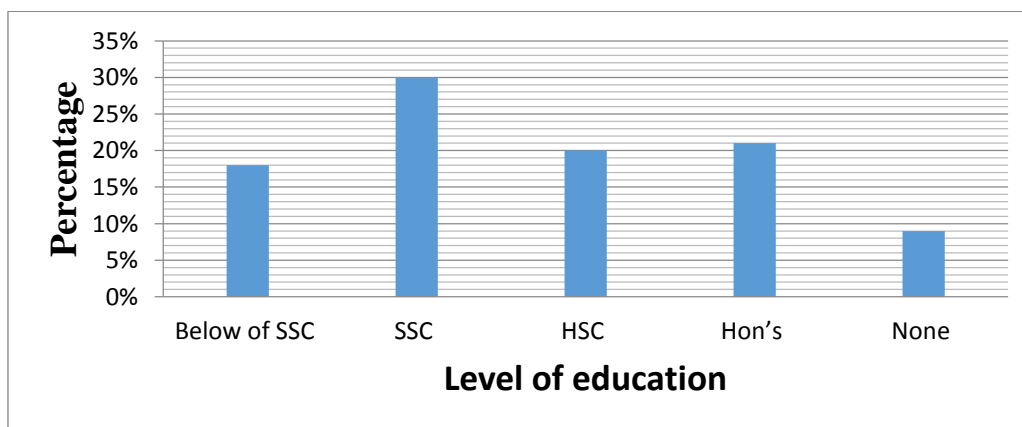


Figure 8: The chart of the education percentage of the patient.

Comment: 18% people are passing below of ssc, 30% people are passing ssc, 20% people are passing hsc, 21% people complete their graduation, 9% people didn't know the study.

IV. CONCLUSION

In the present study, 58% patient are going TB test after Doctor suggestion and 15% patient are going willingly. In the Age of 25-30 patient are large number come and contract in TB and the Age 61-80 less found in the survey. When the survey of the patient the number of 83% patient express their opinion they know TB is curable disease and 17% don't know it is curable. In this survey 91% patient are male and 9% are female. The economic condition of low classes 72% people is coming in the Govt. Hospital for the treatment of TB and they complete their treatment of the doctor suggestion. This research work showed that most of the patients knew that TB is a curable disease with consistent treatment, length of treatment and way of treatment. This will

mentally boost them to take by their treatment directions. Patients' awareness about costs of incomplete treatment was reduced. This research work suggests that more importance should be prearranged on teaching patients about costs of incomplete treatment.

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