



# STUDY TO ASSESS KNOWLEDGE AND ATTITUDE OF HEPATITIS B AMONG MEDICAL STUDENTS

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## ABSTRACT

**Background:** HBV among health care professionals can be prevented by strategies like vaccination, increasing awareness and following universal precautions. The present study was conducted on medical students to evaluate knowledge regarding Hepatitis B Virus and to know their vaccination status.

**Methodology:** Cross sectional study was carried out on 1st year MBBS students of BLDEU Shri B.M. Patil medical college Vijaypur. All the students who were present on the day of data collection were included in the study and interviewed using pretested questionnaire. Data was analyzed using percentages.

**Results-**Most of the students had good knowledge about disease, causative agent and modes of transmission & prevention. Astonishingly half of them were unaware of high risk of transmission to health professional.

**Conclusion** -It is recommended for Hepatitis B vaccination for all unimmunized students who enter medical profession. The orientation and sensitization programme should be held to create awareness regarding HBV infection.

**Key words:** Hepatitis B infection, attitude, knowledge, MBBS students

## INTRODUCTION

Hepatitis B is an acute systemic infection with major pathology in the liver, caused by Hepatitis B virus (HBV) and transmitted usually by the parenteral route<sup>1</sup>. Globally more than 2 billion are infected and 350 million are suffering from chronic disease<sup>2</sup>. About 6% of the world population is carrier for HBV accounting for about 80 million carriers<sup>3</sup>. Annually about 5,00,000 to 1.2 million people die due to chronic hepatitis, cirrhosis, and hepatocellular carcinoma related to chronic HBV infection<sup>4,5</sup>. India has point prevalence of 2.1% and carrier rate of 1.7%. Some studies have shown higher carrier state ranging from 11% in healthcare worker to 5% in general population<sup>6</sup>. HBV is highly infectious and is transmitted by percutaneous and permucosal exposure to infected blood and other body fluids<sup>7</sup> (i.e. semen and vaginal fluid). Most

common routes of transmission include mother-to-infant, unsafe injection practices, blood transfusions and multiple sexual partners<sup>8-10</sup>. Health professionals are at high risk of getting HBV infection. Approximately 66,000 hepatitis B viral infections are reported per year due to needle stick injuries. It was reported in study on medical students that 30% of reported needle stick injuries occurred in the operation room<sup>11,12</sup>. World Health Organization has recommended that HBV vaccine should be made part of mass immunization programs as tool for prevention<sup>13</sup>.

HBV among health care professionals can be prevented by strategies like vaccination, increasing awareness. The present study was conducted on medical students to evaluate knowledge regarding HBV and to know their vaccination status.

## METHODOLOGY

A cross sectional study was conducted on first year MBBS students of BLDEU Shri B.M.Patil medical college Vijaypur from December 2015 to January 2016. Institutional ethics committee approval has been taken prior to the start of the study. Informed oral consent was taken from the students before administering questionnaire to them. A total of 135 students who were present on the day of interview and those who are willing to participate in the study were interviewed using pretested questionnaire and the data was analyzed using Microsoft excel software. Descriptive statistics was used to analyze the data.

## RESULTS

A total of 135 first year MBBS students were participated in the study. There are 80 (59.2%) male and 55 (40.8%) female students were enrolled for the study.

**Table - 1: Awareness about Hepatitis B (Multiple answers) n=135**

Awareness	Students (n=135) (%)
Heard about Hepatitis B	135 (100)
Caused by HBV	120 (88.8)
Diagnostic tests available	118 (87.4)
Ideal age for vaccination	105 (77.7)

**Table 2: Source of information about Hepatitis B (Multiple answers) n=135**

Source of information	Students (n=135) (%)
Media	61 (84.7)
Doctors / health workers	28 (38.8)
Friends & family	16 (22.2)
Others	14 (19.4)

**Table 3: Knowledge about modes of transmission (Multiple answers) n=135**

Modes of transmission	Students (n=135) (%)
Transfusion of blood and its products	115 (85.4)
Sharing of needles	123 (91.1)
Intravenous drug users	124 (91.8)
Multiple sexual partners	110 (81.4)
Mother to child transmission	116 (85.9)

**Table 4: Awareness about preventive measures (Multiple answers) n=135**

Awareness about preventive measures	Students (n=135) (%)
Use of Hepatitis B vaccine	132 (97.8)
Safe blood and its products	130 (96.3)
Avoid sharing of needles	128 (94.9)
Avoid intravenous drug users	124 (91.9)
Avoid multiple sexual partners	120 (88.9)
Use condoms	120 (88.9)

The awareness about Hepatitis B disease among the students was found to be good. Most of the students were aware about disease (100%) and its causative agent (88.8%). The knowledge about ideal age for Hepatitis B vaccination was answered correctly by 77.7% students

On assessing student's knowledge about source of information, most of them told media 84.7% (Newspaper, Radio, TV, Internet) indicating its importance in reaching general public. Other sources were health workers (38.8%), Friends & Family (22.2%)

Students opined about mode of transmission have shown that 85.4% students accepted that HBV spread through transfusion of unsafe blood and 91.1% told through sharing of needles. Majority students answered that HBV is transmitted also by having multiple sexual partners (81.4%).

Majority of students (97.8%) thought about hepatitis B vaccine as tool for prevention. They also agreed that use of safe blood and its products (96.3%), and condoms (86.1%) are important preventive methods.

## DISCUSSION

In our study awareness about Hepatitis B disease among the students was found to be good. 77.7% students knew about mode of transmission, 85.4% students accepted that HBV spread through transfusion of unsafe blood. Majority students were opined that HBV is transmitted also by having multiple sexual partners (81.4%). On assessing student's knowledge about source of information, most of them told media 84.7% (Newspaper, Radio, TV, Internet) indicating its importance in reaching general public. Other sources were health workers (38.8%), Friends & Family (22.2%). Similar and contrast findings have been observed in different studies conducted across India. Nazir Ibrahim et al study conducted in Syria<sup>14</sup> have shown that awareness among first year medical students about HBV was 89.06% and causative agent was answered correctly by 67.18%. and 50% agreed that health professional are at high risk. A study conducted on married women in Jammu<sup>15</sup> reported that friends, radio, television, newspaper, doctor and magazines were the source of information in 20%, 10%, 35%, 5%, 25% and 5% of the women respectively. This study also highlights role media in spreading awareness. Similar observations were made by study in Chennai<sup>16</sup> where 86.7% dental students were aware about correct modes of transmission of hepatitis B virus. The awareness about modes of transmission in our study was better compared to Syrian<sup>14</sup> study were only 57.81%, students identified correctly transmission

modes through transfusion of blood. Study in Jammu<sup>15</sup> reported that use of condoms and sterile needles was proposed by 20%, avoidance of addiction by 50%, and immunization with hepatitis vaccine by 60% of the women as preventive measures against HBV infection

## CONCLUSION

Most of the students had good knowledge about disease and modes of transmission & prevention. Surprisingly half of them were unaware of high risk of transmission to them for being a health care professional. Hence it is recommended for Hepatitis B vaccination for all unimmunized students who enter medical profession. The orientation and sensitization programme should be held to create awareness regarding HBV infection.

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