e-ISSN: 0975-9506, p-ISSN: 2961-6093

Available online on www.ijpqa.com

International Journal of Pharmaceutical Quality Assurance 2026; 17(6); 353-355

Original Research Article

A Knowledge, Attitude and Perceptions of 1st Year MBBS Students towards Hepatitis B Virus Infection and Vaccination

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Received: 26-04-2026 / Revised: 25-05-2026 / Accepted: 26-06-2026

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Conflict of interest: Nil

Abstract:

Background: Hepatitis B virus infection is one of the important causes for the development of chronic liver disease. The prevalence of chronic Hep- B virus infection in India is 1.46% with an estimated 17 million people who are chronic carriers of Hepatitis virus. Compared to the general public, the Seroprevalence of HBV infection is quiet higher among health care providers.

Objectives: To assess the knowledge, attitude and perceptions of 1st year MBBS students regarding HBV infection and vaccination.

Methodology: This study was carried out among 1st MBBS. A self-structured objective type of questionnaire was prepared consisting of questions which were used to assess the knowledge regarding HBV infection and vaccination for it. The responses were analyzed using Microsoft excel and Epi Info 7.

Results: 92.3% of the students told that they have heard about hepatitis and 78.46% were also aware that the primary organ affected in hepatitis is liver. 87.69% responded that they were aware of hepatitis being transmitted from person to person. 89.23% of the study population had correct knowledge about the mode of transmission.

Conclusion: It is recommended to increase the awareness of importance of vaccination against HBV at the beginning of the medical course and consider to vaccinate all of them before they are exposed to the patients during their clinical postings in near future.

Keywords: Hepatitis B Virus Infection, Chronic Liver Disease, Medical Students, Vaccination.

DOI: 10.25258/ijpqa.17.6.85

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Introduction

Hepatitis B virus infection which is one of the major cause of chronic liver disease and it still continues to assume endemic proportions in many countries of the world inspite of implementation of vaccination program for the same. The World Health Assembly has called for a goal for eliminating viral hepatitis as a major public health burden by the year 2030 [1]. It is estimated that 257 million people are living with chronic hepatitis B infection globally and 8,07,000 deaths were estimated due to complications arising from chronic hepatitis B infection in the year 2015 [2]. The prevalence of chronic hepatitis B virus infection in India is 1.46% with an estimated 17 million people who are chronic carriers of Hepatitis viral infection [3]. WHO recommends vaccination for hepatitis B virus at the birth which is followed by 2 or 3 doses [4]. Studies done in many other countries have shown a marked reduction in the prevalence of chronic HB virus infection and the occurrence of hepatocellular carcinoma in fully vaccinated people [5,6]. Seroprevalence of HBV infection is few times higher among health care workers when compared to the general population [7]. The high prevalence of HBV infection is attributed to issues like incorrect handling of infectious materials and issues regarding improper sterilization of medical equipments [8,9] Medical students and house surgeons are at a great er risk of contracting HBV infection because of their inexperience in handling the infected material [10, 11]. Hepatitis B vaccination program was launched in 2003 in India and it was expanded to the entire country in 2008 [12]. It is unlikely that the Indian population born before 2008 have not received Hepatitis B vaccination as it was not a part of Immunization program. Several studies done earlier have indicated that there is a clear gap of knowledge and information about safe medical practices to reduce the risks of occupational exposure to HBV infection [13, 14]. Hence the present study is taken up among the first year medical students to assess the

knowledge and their perceptions regarding HBV infection and vaccination for the same.

Materials and Methods

This cross sectional study was carried out among first year MBBS students . All the 130 students were enrolled in the study. A self-structured objective type of questionnaire was prepared consisting of questions which were used to assess the knowledge regarding HBV infection and vaccination for it. Informed consent was taken and the confidentiality was maintained during the process of this survey. The responses were analyzed using Microsoft excel and Epi Info 7.

Results

Table 1: Age and gender distribution

	Mean	**Standard deviation**
Age of the subject	18.05	0.52
Sex	**Frequency**	**Percentage**
Female	72	55.38
Male	58	44.61

Table 2: Respondents knowledge about HBV infection and vaccination

Have you heard about hepatitis?	120 (92.3%)
What organs is primarily affected in hepatitis-B?	102 (78.46%)
Can hepatitis-B transmitted from one person to another?	114 (87.69%)
What in your view is / are the mode of its transmission? (sexual & parental)	116 (89.23%)
Who are at higher risk of acquiring hepatitis	78 (60%)
Is hepatitis-B infection preventable by vaccination	98 (75.38%)

Discussion

Hepatitis B is an acute viral infection which is caused by HBV primarily affecting the liver with potential complications which include hepatocellular carcinoma, cirrhosis of liver and chronic hepatitis [15,16]. Healthcare professionals are at an increased risk of occupational exposure to HBV infection especially in developing countries. Our study population included 130 first year medical students. The average age distribution of the study population was 18.05 years and males constituted 58 (44.61%) and females 72 (55.38%) of the study population. Analysis of the responses revealed that 92.3% of the study population told that they have heard about hepatitis and 78.46% were also aware that the primary organ affected in hepatitis was liver. 87.69% responded that they were aware of hepatitis being transmitted from person to person. 89.23% of the study population had correct knowledge about the mode of transmission. These findings are consistent with another study done by Darwish and AL Khaldi [17] done among medical students. In another study done by Sanjay Kumar Choudhary and et al. revealed that 92% of the students had correct knowledge regarding the mode of transmission [18]. 60% of the study population was aware of the higher risk of acquiring HBV infection among healthcare workers. 75.38% of the students reported that they were aware that HBV infection can be prevented by vaccination although only 46% of the study population was aware of the correct Hepatitis B immunization schedule. This is in consistent with another study done by Sanjay Kumar Choudhary and et al. where 52% of the study population did not know about the correct vaccination schedule [18].

Conclusion

HBV infection which primarily affects the liver with a potential of causing chronic diseases can be effectively prevented by vaccination. Our study provides many evidences about the knowledge and perceptions about HBV infection in first MBBS students. Inspite of having a good knowledge about the infection and the mode of transmission and also with the availability of vaccine it was found that 69.23% of students were not immunized. It is recommended to increase the awareness of importance of vaccination against HBV at the beginning of the medical course and consider vaccinating all of them before they are exposed to the patients during their clinical postings.

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