

# Assessment of Knowledge on Occupational Exposure to Hepatitis B Infection and Vaccine among Undergraduate Students in a Private Dental College, Chennai.

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## Abstract:

### *Aim*

The aim of this study is to assess the knowledge about hepatitis B vaccination among dental undergraduate students in a private dental college.

### *Background:*

Hepatitis B virus transmission in a dental setting occurs due to inadequate /improper use of safety measures by the dental practitioner. . A cross sectional survey using a self administered questionnaires regarding the awareness about hepatitis was carried out using a pretested self - administration among 200 undergraduate dental students. The data extracted was tabulated and analysed. This study highlights the knowledge about hepatitis B vaccine among the dental students.

**Key words:** hepatitis B, knowledge, awareness,survey.

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## INTRODUCTION

Hepatitis B (HBV) a double stranded DNA virus of the hepadnaviridae family causes the most common inflammatory disease of the liver. This virus can survive outside the host for at least seven days and the incubation period is of 21-135 days.<sup>[1]</sup> Seven types of hepatitis virus are identified and named as hepatitis A to G, of which F is hypothetical and hepatitis B remains the most serious type with high risk of death from liver cirrhosis and cancer. Globally there are more than two billion people , having evidence of recent or past HBV infection, around 350 million are chronic carriers.<sup>[2]</sup> In India, is at the intermediate endemic level of hepatitis B with more than 40 million HBsAg carriers accounting for 9 % of the total carriers worldwide.<sup>[3]</sup>

HBV infections are 50 to 100 times more infectious than HIV<sup>[4]</sup>. It is mainly acquired in the course of contaminated needles or blood products and infection patterns are diffuse<sup>[5]</sup>.

Although vaccines against HBV infection are available since 1982 and proved to be 95% effective in preventing infection, still there is lack of knowledge of Hepatitis B infection and vaccine exists in India. [8] it is evident that dental professionals are at a higher risk of acquiring HBV compared to the other sectors of health care delivery system. So, the present study was designed to assess the knowledge about hepatitis B infection among the dental graduates.

## MATERIALS AND METHOD:

This is an institutional based study conducted to determine the awareness on hepatitis B infection, from Saveetha Dental College. This study is conducted among the dental students who are attending the first year , second year ,third year ,fourth year and fifth year .

### **Questionnaire:**

A valid questionnaire [15]was distributed among all the students of the study .This is a self reported questionnaire which takes about 10 min for completion .All the questionnaire were Given two option (yes /no).,

### **Statistical analysis :**

Questionnaire were manually checked for completion of data. All data were entered in a data entry form.

## RESULTS :

A total of 200 students participated in this study .Of these 81 (40.5%) students were male and 119 (59.5%)were female . this study shows only 80% have been vaccinated for hepatitis B though more than 80% of the students were aware of the vaccination schedule and the mode of transmission. It is found 77% responded that HBV causes liver cancer . Regarding the question, transmission of HBV from mother to child is 147 (73.5%). 70.5% are aware that jaundice is the common symptom for hepatitis B .Regarding post hepatic prophylaxis 50% are aware that should be done within 48 hours. 78.5% are aware that hepatitis B is curable or preventable. Awareness programme regarding hepatitis B is less ,only 50.5% have been attended awareness program. Thus the total number of students done screening for HBV has reduced to 35.5%.

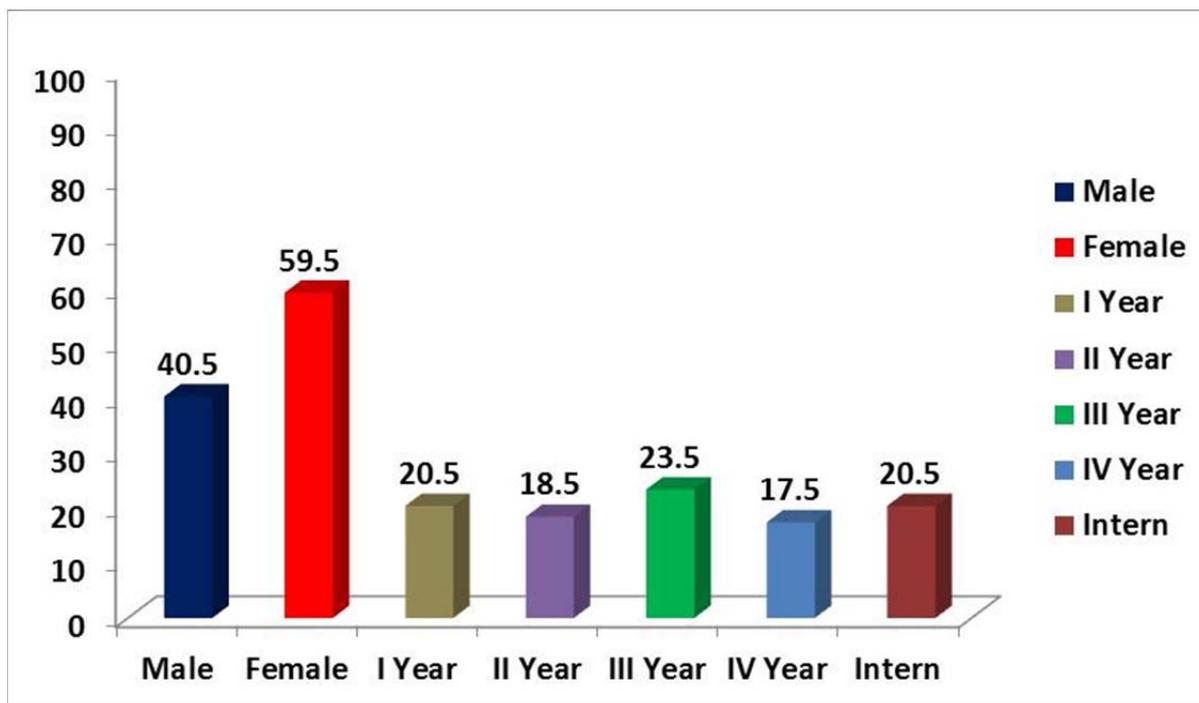


Table:1 Distribution of subjects based on Gender and Year of study .

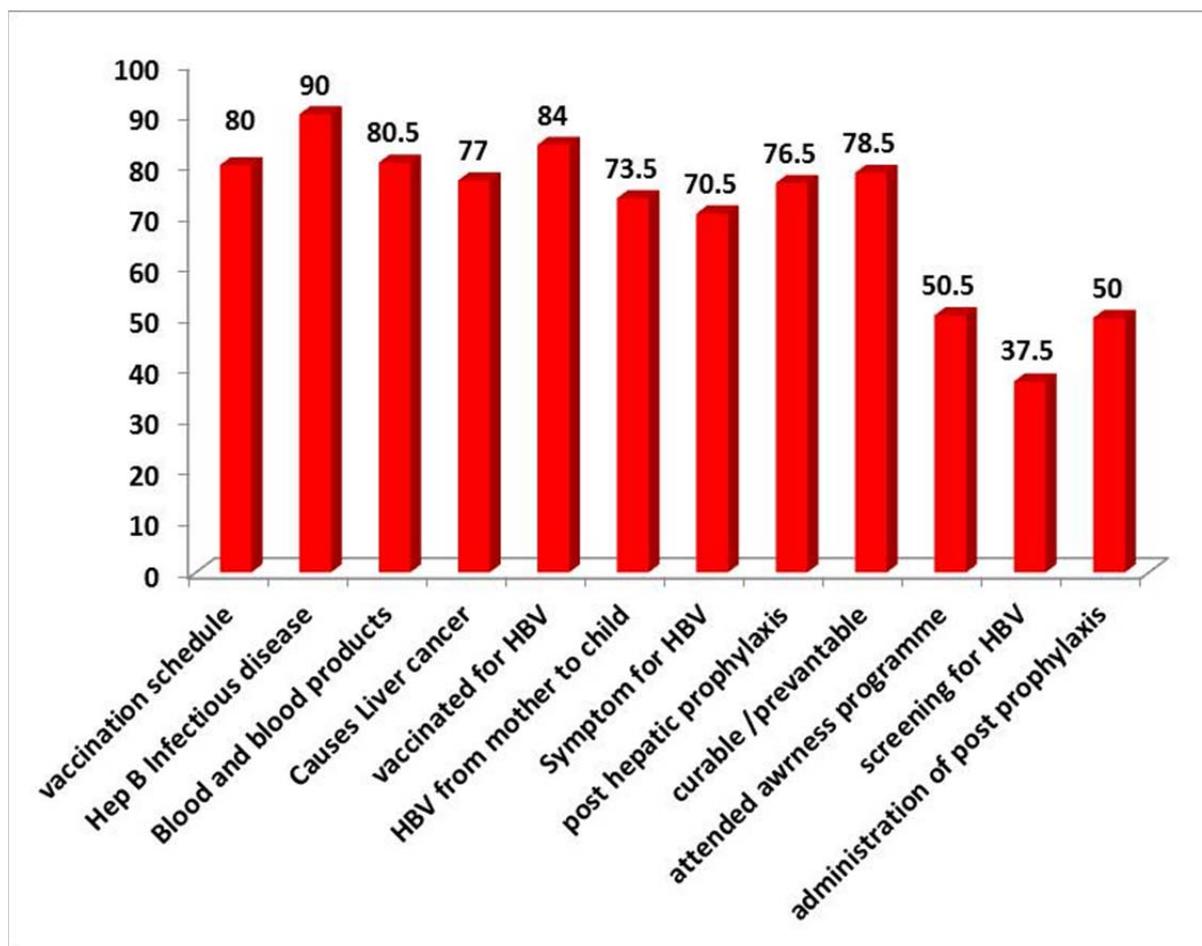


Table: 2. Knowledge of Hepatitis B vaccination among the dental under graduate students.

**DISCUSSION :**

Study was conducted to assess the knowledge of hepatitis B vaccination among the dental under graduate students. It found that only 84% of students were vaccinated.

In this present study 86.7 % were aware about mode of transmission of hepatitis B virus which is similar to Singh, A. & Jain, S 2011.<sup>[8]</sup> And 85 % were aware about the routes of transmission of hepatitis B which is higher compared to Khan, N et al. 2010 in Karachi, the results obtained were significantly lower.<sup>[9]</sup>

It is found that 50% are not aware of post exposure prophylaxis in contrast to a study where 76% did not have the knowledge regarding post exposure prophylaxis (Khan, N et al. 2010). Similarly, 20% of the second year had the correct knowledge regarding the same (Singh, A. & Jain, S., 2011)<sup>[8]</sup>.

Since awareness on hepatitis B is 50% which is significantly lower it is of prime importance that all dental graduates student to update about hepatitis B infection

**CONCLUSION:**

To conclude, scientific knowledge regarding HBV transmission is essential for any medical professional students since they have to take the proper protection during their clinical posting as HBV is easier to transmit than HIV. This study also reflects the need of advising screening and diagnostic tests for dental students and HBV. Dental students should be aware of post exposure prophylaxis in case of any accidental exposure to HBV.

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