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A STUDY ON HBV VACCINATION COVERAGE OF MEDICAL STUDENTS

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ABSTRACT

Background: The WHO has introduced a mandatory HBV Vaccination for students of health sciences on their entry into medical school as there are chances of acquiring HBV infections during their training programme. Medical council if India also insists medical students to have HBV vaccination at the time of admission.

Aim: To find out whether medical students complete HBV vaccination , To identify reasons for noncompliance if any and to provide suggestions for completion of HBV vaccination.

Materials and methods: Descriptive study. total of 100 students joined in 2014 were informed about the proposed survey and asked to fill up pretested questionnaire in an anonymous manner. The data collected were details of vaccination, reasons of non compliance. The data were analysed by simple descriptive statistics.

Results: Of the questionnaire circulated 92 were returned and the response rate was 92%. Number of individuals completed 1st, 2nd , and 3rd dose were(20)90(97.8%), 83 (90.2% , 53 (57.6%) and booster dose 12 (13.04%) and 39 (42.4%) did not complete vaccination,. Reasons provided for incomplete vaccination are for gotten-23 (25%), parents not encouraging 6(17.39%) , None compelled -15 (16.3%) , none reminded 12 (13.04%), and multiple reasons in 19 (20.65%) others.

Conclusions: All medical students do not complete HBV vaccination even though mandatory. Reasons are lack of enforcement system and lack of supervisory measures. Hence it is suggested to introduce enforcement system by concerned authorities.

KEYWORDS : HBV vaccination, Health care workers, Medical students.

Background:

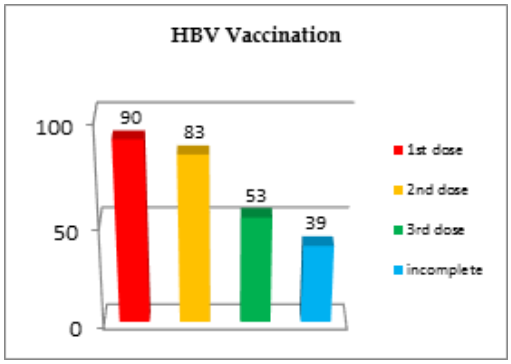
Chronic hepatitis B is a common disease with an estimated global prevalence of over 300 million carriers, or approximately 5% of the world's population. In the Far East the Middle East, Africa, and parts of South America, the prevalence is high, with HBeAg positivity rates ranging from 8% to 15%. Regions of intermediate prevalence (2%-7%) include Japan, parts of South America, Eastern and Southern Europe, and parts of central Asia. In a study conducted in Salem eighty one persons that is 5.36% of the 1511 persons screened for HBsAg were positive [1].In another study conducted in northwest Tamilnadu 22 pateints were positive for HBV among CLD patients.[2]Prevalence is lowest (<2%) in the United States and Canada, Northern Europe, Australia, and the southern part of South America..HBV is parenterally transmitted via blood or blood products or by sexual or perinatal exposure, the same routes as for HIV..HBV co infection with HIV seen in 20% cases of patients under going HAART therapy in one study[3] . Sexual activity is probably the single most important mode of HBV transmission in areas of the world such as North America, where the prevalence of infection is low. Heterosexual sex, now accounts for the majority of cases of HBV infection (26%) with an identifiable risk factor in the United States.. In the United States and Western Europe, injection drug use remains a very important mode of HBV transmission (23% of all cases)Other risk factors for HBV infection include working in a health-care setting, transfusions and dialysis, acupuncture, tattooing, travel abroad, and residence in a an institution. With chronic infection, HBsAg, HBeAg, and HBV DNA remain positive for 6 months or longer. After the acute phase of infection, serum ALT levels fall but often remain persistently abnormal (from 50 to 200 U/L). IgM anti-HBc titers typically fall to undetectable levels after 6 months IgG anti-HBc persists during the acute and chronic phases of disease. With time, there may be a spontaneous loss of HBV DNA and HBeAg, frequently in association with a flare of serum ALT levels and seroconversion to anti-HBe positivity. Spontaneous loss of HBeAg is rare. Anti-HBs may be detected simultaneously with HBsAg in serum in fewer than 10% of cases. The presence of anti-HBs is associated with immunity to HBV infection. Isolated anti-HBs is more likely to be acquired by vaccination than by natural infection, in which both anti-HBs and IgG anti-HBc are typically present..The treatment for the Chronic hepatitis B virus infection is mainly decided by the serum ALT level, HBV DNA level, and histopathological features of the liver at baseline as well as the cost of therapy, patient tolerance to the drugs, age and other coexisting diseases. Active immunization is the best option available to control the spread of virus and protect the potentially high risk group. The WHO has introduced a mandatory HBV Vaccination for students of health sciences on their entry into medical school as there are chances of acquiring HBV infections during their training programme. Medical council of India also insists medical students to have HBV vaccination at the time of admission

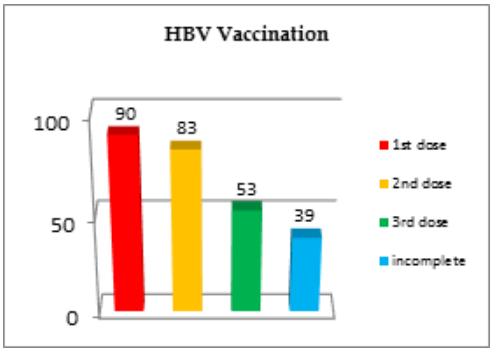
Aim:

To find out whether medical students complete HBV vaccination, To identify reasons for noncompliance if any and to provide suggestions for completion of HBV vaccination.

Materials and methods:

Descriptive study This study was conducted in Government Mohan kumaramangalam Medical college, Salem in July2017. A total of 100 students who joined in 2014 were informed about the proposed survey and asked to fill up pretested questionnaire in an anonymous manner. The data collected were details of vaccination, reasons of non compliance. The data were analysed by simple descriptive statistics. Results: Of the questionnaire circulated 92 were returned and the response rate was 92%. Number of individuals completed 1st, 2nd , and 3rd dose were 90(97.8%), 83 (90.2% , 53 (57.6%) and 39 (42.4%) did not complete vaccination,. Reasons provided for incomplete vaccination are forgotten-23 (25%), parents not encouraging 6(17.39%), None compelled -15 (16.3%), none reminded 12 (13.04%), and multiple reasons in 19 (20.65%) others.





Discussion:

Medical students and health care workers are at a high risk of various blood-borne infections, including HBV. 90-95% adults active immunisation is effective in protecting [4]. Unfortunately vaccination against HBV is not practised adequately despite various awareness program . According to WHO estimates, HBV vaccination among health care workers varies from 18% to 77% [5]. Another study done at New Delhi revealed that 55.4% of HCWs were fully vaccinated against HBV [6]. In the our study , of 92 medical students Number of individuals completed 1st, 2nd and 3rd dose were 90(97.8%), 83 (90.2%), 53 (57.6%) and 39 (42.4%) did not complete vaccination.the reason stated for non compliance of vaccination include forgotten in 25%, parents not encouraging in 17.39%, none compelled in 16.3% , none reminded in 13.04% and multiple reasons in 20.65%. In order to make the immunisation coverage of medical students complete the parents as well as the students should be properly motivated. Effective monitoring system must be instituted in all medical colleges

Conclusions:

All medical students do not complete HBV vaccination even though mandatory. Reasons are lack of enforcement system and lack of supervisory measures. Hence it is suggested to introduce enforcement system by the concerned authorities and get them vaccinated against HBV . Recommendation: In view of sub optimal status on HBV vaccination among medical students similar studies have to be under taken in other medical colleges and efforts should be made to complete vaccination.

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