STATUS OF HEPATITIS B VACCINATION AMONG HEALTH CARE WORKERS IN A RURAL TERTIARY HOSPITAL

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ABSTRACT: Healthcare workers have high risk of occupational exposure to many blood-borne diseases. Among the high risk groups like healthcare workers, a proportion of vaccinated health care workers are very low. It is in this context that this study was conducted to know the vaccination status among healthcare workers. Descriptive cross-sectional study was done at SRTGMC Ambajogai. Only 35.05% (135) were completely vaccinated & majority of group 54.12% (210) were not vaccinated. Main reason for not taking doses in student nurses was that they did not know about vaccination 60%.

KEYWORDS: Healthcare workers; Hepatitis B vaccination.

INTRODUCTION: Healthcare workers have high risk of occupational exposure to many blood-borne diseases including HIV, Hepatitis B, & hepatitis C. Out of these hepatitis B is not only most infectious but only disease which is preventable by vaccination also¹. In developing countries like India the sero-prevalence of hepatitis B among Healthcare workers is 2 to 4 times higher than that of general population².

Effective vaccines are available against hepatitis B since 1982¹. But even among the high risk groups like healthcare workers; a proportion of vaccinated health care workers is very low. It is in this context that this study was conducted to know the vaccination status among healthcare workers

MATERIALS AND METHODS: Descriptive cross-sectional type of study was done at S.R.T.R. Medical College & Hospital Ambajogai, Dist -Beed Maharashtra, India. Operational definitions used in the study were complete vaccination: taken 0, 1&6 all the three doses; Partial Vaccination: taken one or two doses only and not vaccinated (nil): not taken single dose. Study was conducted in 388 healthcare workers in the month of Dec 2010 after their informed verbal consent. Resident doctors, Interns, Staff nurse, Student nurse & Lab. workers from blood bank, Pathology lab, Biochemistry lab, ART centre lab etc. were included in the study. Interview based semi structured & closed ended questionnaire was used for collecting the data. Ethical clearance was taken from institutional ethical committee.

RESULTS: Out of 508 healthcare workers a total 388(76.37%) healthcare workers were included in the study.

Participants	Total	No. of participants
Resident doctors	140	90(64.28%)
Interns	52	40(76.92%)
Staff nurse	200	148(74%)
Student nurse	60	60(100%)
Lab workers	56	48(85.71%)

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Total	508	388(76.37%)
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Table 1: Participants involved in study

Out of 388 health care workers only 135 (35.05%) were completely vaccinated & majority of group 210 (54.12 %) were not vaccinated.

Healthcare workers	I dose	II doses	III doses	not taken	Total (100%)
Resident doctors	4(4.4%)	8(8.8%)	70(77.7%)	8(8.8%)	90
Interns	5(11.9%)	3(7.14%)	28(66.6%)	6(14.28%)	42
Staff nurses	6(4.05%)	10(6.75%)	34(22.97%)	98(66.21%)	148
Student nurses	0	0	0	60(100%)	60
Lab. Workers	4(8.33%)	2(4.16%)	4(8.33%)	38(79.16%)	48
Total	19 (4.88%)	23 (5.92%)	136 (35.05%)	210 (54.12%)	388

Table 2: Number of doses taken by participants

Vaccination status among healthcare workers was not satisfactory none of the student nurse had taken an even single dose of vaccine.

Figure1: Completely vaccinated healthcare workers

Main reason for not taking doses in student nurses was that they did not know about vaccination 57 (60%).

Reasons	Resident doctors	Interns (%)	Staff nurses (%)	Student nurses (%)	Lab workers (%)	Total (%)
Not known	0	0	10(10.5)	57(60)	28(29.47)	95
Not believe	0	0	28(77.7)	0	08(22.2)	36
Lack of motivation	09(20)	08(17.7)	36(80)	0	01(2.2)	45
Forget next dose	11(28.2)	06(15.3)	16(41.2)	0	06(15.3)	39
Concern about side effect	01(2.5)	01(2.5)	24(60)	03(5)	11(27.5)	40

Table 3: Reasons for not taking vaccination

DISCUSSION: Main highlight of the study was that only 35% healthcare workers were vaccinated which was far less than developed countries (75-80%)². Other studies from India i.e. Delhi, AIMS & Armed Forces Hospital, India reported 55.4%, 52-59% & 57.7%^{3,4} respectively were fully vaccinated. Another important aspect of the study was that none of the student nurses had taken even a single dose. Reason behind this is that most of them do not know about vaccine which may be due to all of them come from rural area. Studies reported that maximum occupational risk of HBV was during training and early years of health profession when exposure is maximum and awareness of blood borne pathogen is minimal².

Complete vaccination in staff nurses (22.97%) and laboratory workers (8.34%) were also far from satisfactory in our study. This was much higher reported from study Armed Forces Hospitals, India in which nursing 29% & paramedical staff 59% had complete vaccination⁴. Main reason for not taking vaccination in our study was lack of knowledge (35.98%) and lack of motivation (20.45%). Attitude & knowledge regarding non vaccination were important reason from study from Armed Forces Hospital, India⁴.

CONCLUSION: Majority of healthcare workers were not vaccinated. Among various categories of healthcare workers, vaccination status was very low in nurses & Lab workers. Lack of knowledge about vaccine & lack of motivation was the important reason for incomplete vaccination.

RECOMMENDATION: It is very important to achieve 100% vaccination coverage among healthcare workers, not only by providing free immunization facilities by govt. to healthcare workers but it is also necessary to make it mandatory for healthcare workers legally. The study also recommends health education of healthcare workers on occupational risk of hepatitis B & its prevention.

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