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HEPATITIS B: ITS AWARENESS, PRACTICE AND FREQUENCY OF VACCINATION AMONG SELECTED HIGH-RISK HEALTH-CARE WORKERS AT TERTIARY CARE HOSPITAL

[1]Dr.Aqsa Ghias, [2]Dr.Sadaf Ramzan, [2]Dr.Tehreem Malik
[1]Mohi Ud Din Islamic University A.J.K, [2]Xinjiang Medical University China

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Abstract:
Background: *hepatitis B intransporters of HBV around the world.* ***Goals:*** *to survey the mindfulness and routine with regards to chosen high-hazard wellbeing specialists (wellbeing laborers) in regard to the danger of hepatitis B and the status of self-announced inoculation.*
Materials and strategies: *from January to March 2014, a cross-sectional investigation was led among 300 chose medicinal services experts from the Nishter Hospital lahore.*
Results: *About 72.1% of the respondents were ladies with a normal time of 24.10 (standard deviation ± 7.011). 67.5% of ladies were somewhere in the range of 18 and 23 years of age. The greater part (70.4%) of the members were nursing understudies and groups of Hindus (92.5%) atomic (54.6%). Most (69.3%) knew that transmission of hepatitis B was conceivable because of dangerous sex, tainted blood/body liquid, syringe, polluted needle and surgical tool, 19.6% due of tainted blood and body liquid, 5.7% per syringe and defiled needle and surgical blade realized that 1.8% was hazardous sex. 59.3% had contact with a known instance of hepatitis B previously. 62.2% were immunized with three portions of hepatitis B immunization. Most members were presented to a positive case for hepatitis B at work (P = 0.001). Individuals presented to known instances of hepatitis B counseled a specialist, who was inoculated and treated with medications (P = 0.002); utilized shredder (P = 0.012); immunized with 3 dosages of hepatitis B antibody (P = 0.001); and utilized clean gloves during work (P = 0.000), especially during the treatment of blood and body liquid.*
Conclusion: *regardless of good information, techniques for the aversion of hepatitis B contaminations were lacking and should be additionally improved.*
Key words: *Health care workers, hepatitis B, knowledge, practice, tertiary care hospitals.*

Corresponding author:
Dr. Aqsa Ghias,
Mohi Ud Din Islamic University A.J.K.

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INTRODUCTION:

Hepatitis B infection (HBV) disease is a worldwide pandemic and there are more than 350 million HBV transporters worldwide with low and amateurish demeanors and conduct. [1] HBV is a DNA infection and one of the numerous random infections that reason viral hepatitis and can prompt cirrhosis and hepatocellular carcinoma. [2,3] More than seventy five percent of diseases happen in Asia, the Middle East and Africa. [4,5] The WHO assessments that> 2 billion individuals worldwide have serological proof of past HBV contaminations. [6] 75% of the world's HBV transporters originated from Asia. [7] Worldwide, more than one million individuals pass on every year because of their causes. [8] This high pervasiveness rate with sequelae, for example, cirrhosis and hepatocellular carcinoma makes HBV disease a significant general wellbeing concern around the world. [9] The predominance of lacking HBV and conflicting usage of air transporters fluctuates between the most reduced in Japan (<0.00005%) [10] and the most astounding (10-20%) in regions, for example, Southeast Asia , China and Africa south of the EU Sahara. [11] According to a Lahore think about, the commonness of HBsAg in ordinary subjects was 2.6% [12] and in Multan blood contributors 3.37%. [13] because of business, wellbeing experts (medicinal services experts) are continually in danger of getting HBV from contaminated patients. [14,15] It is generally transmitted as a blood-borne contamination. [16] Nosocomial transmission can be forestalled by immunization of medicinal services experts. [17] Hepatitis B immunization secures against contamination. [18] Health and research center specialists, who are commonly attempting to address numerous word related perils and their wellbeing and security, might be at genuine hazard if sufficient preventive measures are not taken. The avoidance of dangers in the work environment requires a careful learning of the dangers to be taken and useful measures. [19] You ought to acquaint yourself with the Center for Disease Control-characterized "general family safeguards". This is a progression of precautionary measures to anticipate transmission of HBV/hepatitis C infection (HCV), human immunodeficiency infection (HIV) and other blood borne contaminations in the arrangement of emergency treatment or social insurance. Under general safety measures of blood and some body liquids of all patients are considered conceivably irresistible for HIV, HBV/HCV and different pathogens. [20] It is prescribed that HCW play it safe to avoid wounds brought about by needles, surgical tools and other sharp instruments or gadgets. [21] This disease control framework is significant, along these lines, when the danger of transmitting contaminations in the work environment ought to be limited as they can know the consequence of blood and liquid examples simply after the examination. [20] In Tripura, the Hepatitis Foundation of Tripura works (HFT), a non-administrative association (NGO) dynamic in the battle against hepatitis B disease in the state. By 2011, a sum of 69,811 individuals were immunized with a populace inclusion of 19.41%. [22] It ought to be noticed that the positive hepatitis B in Tripura is somewhere in the range of 4% and 5%. [23] Furthermore, 12% of the absolute Muslim populace of the state and 8% of the all out innate populace of hepatitis B disease endure. [24] The point of this investigation was thusly to decide the information of HBV and hepatitis B antibodies, inoculation frequencies and hazard factors for HBV contamination among nursing staff, understudies, assistants and lab professionals who are viewed as high hazard and work in nishter hospital multan.

MATERIALS AND METHODS:

A cross-sectional investigation was led among chosen human services experts at Nishter hospital Multan. An example size of 300 was determined dependent on a commonness of 60% [25] with an outright mistake of 6% including 10 % of no reaction. The individual examples were chosen from accommodation tests and the information were gathered from a pre-tried organized survey. The survey comprised of three sections, the initial segment contained general data on the members and the subsequent part contained the inquiries on information and the third part on the status of the HBV immunization against the condition of down to earth/self-detailed inoculation. There were 15 addresses identified with learning and the appropriate response was parallel and recorded with yes or no. Each article with the right answer got 1 (one) with a most extreme score of 15 and a bogus answer 0 (zero) with a base score of 0 (zero). The information area was partitioned into three classifications: awful (0-5), medium (6-11) and great (12-15). Members were approached to finish the poll with no pertinent temporary or deficient inquiries. Verbal assent was gotten from the members and exacting classification was watched. Specialists who had a HBV contamination previously and would scarcely come into contact with blood/body liquid and the individuals who did not concur were barred from the examination. High-hazard HCWs have been characterized as clinic staff who are at the most noteworthy danger of contracting HBV disease, incorporating into specific the particular idea of the

working environment, for inhabitants, local laborers, medical caretakers, attendants, paramedics and expert specialists/working auditoriums for Allies and gynecology/obstetrics, emergency treatment, emergency unit, division and dental practice. [25] Effective inoculated subjects were characterized as the individuals who had gotten the B immunization dependent on the calendar (0, 1 and a half year) three portions of hepatitis. [25] The information was entered after the fundamental card was made on the PC and dissected utilizing Epi Info adaptation 6.0, CDC, Atlanta, Georgia, USA. Microsoft Corporation, Redmond, Washington, USA.

RESULTS

In the present examination, the lion's share (72.1%) were ladies and the ages of 18 and 23 (67.5%) with a mean period of 24.10 all out years (standard deviation [SD] ± 7.011) somewhere in the range of 18 and 57 years. The dominant part (70.4%) of the members were breastfeeding understudies and the rest were medical caretakers (21.1%), research center experts (4.6%) and care assistants (3.9%). Among these, 92.5% Hindus, Muslims 2.9%, 2.9% Christian, 1.8% Buddhist and most of them (54.6%) were individuals from the family unit. The lion's share (98.2%) reacted that hepatitis B is an infection, and the rest (1.8%) reacted that hepatitis B is a bacterium. Among them, 259 (92.5%) realized that HFT members (a NGO) inoculation against hepatitis B.The greater part (69.3%) realized that a transmission of hepatitis B through the hazardous sex, the blood/body liquid, syringes, needles and surgical tools was conceivable 55 (19.6%) made blood and body liquids of correspondence, 16 (5, 7%) through contaminated syringes, needles and surgical blades, 5 (1.8%) knew uniquely by sexual methods and for the staying 3.6% couldn't clarify. 75 members (26.8%) inaccurately expressed that a given restorative treatment was accessible, while 73.2% demonstrated that they had no such treatment is accessible. As per 251 (89.6%) members an exchange of contaminated mother to the tyke was conceivable, and 245 (87.5%), realized that a mother-to-tyke transmission can antibody (91.8%) can be averted during childbirth he could. An information investigation of hepatitis B disease demonstrated that 171 (61.5%) respondents realized that immunization against hepatitis B was managed to pregnant ladies, while the larger part (62.1%), realized that inoculation in patients with intense fever ought to be kept away from. Among respondents 245 (87.5%) knew about three portions of antibody, while 223 (79.6%) realized that the immunization had real span. Most respondents (52.9%) knew precisely how to avert hepatitis B contamination. Practically half (51.1%) of respondents knew about the conceivable reason for the transmission; (55.7%) had the option to clarify that hepatitis B contamination prompts cirrhosis, 36 (12.9%) clarified this for liver malignancy and 64 (22.9%) clarified it for cirrhosis and disease. Interest of the members was a significant factor in the attention to hepatitis B disease (P = 0.005). Age, religion, family type and pay did not assume a job in the consciousness of hepatitis B contamination in the example populace [Table 1]. One hundred and sixty-two (59.3%) members revealed the historical backdrop of contact with a known instance of hepatitis B. Among those talked with who had built up contact with the known instance of hepatitis B, 34.9% had counseled, inoculated and treated a specialist. 155 (53.6%) respondents utilized needles again after use and 89.6% of respondents utilized needle needles. 267 (95.4%) respondents were immunized with the hepatitis B antibody, yet 168 (62.2%) members got three dosages of hepatitis B immunization at the time this study was led. 271 (96.8%) utilized sterile gloves while the blood was infused or pulled back, 96.8% utilized sterile hardware and 84.6% disposed of the needle and syringe utilized in the protected cut evidence holder [Table 2]. Examination of information with training demonstrated that most of respondents had contact with a positive case for hepatitis B during work (P = 0.001); specialists counseled, immunized and treated with medications (P = 0.002); utilized shredder (P = 0.012); 3 dosages of inoculated hepatitis B (P = 0.001); and utilized clean gloves before work (P = 0.000), especially during the treatment of blood and body liquid [Table 3].

Table 1: Association of knowledge with selected sociodemographic variables				
Variables	**Knowledge score**			***P***
	0-5, n (%)	**6-11, n (%)**	***12-15, n (%)***	
Age (years)				
18-24	0 (0.0)	15 (27.8)	39 (72.2)	0.066
25-29	0 (0.0)	7 (63.6)	4 (36.4)	
≥30	0 (0.0)	1 (50.0)	1 (50.0)	
Sex				
Male	3 (3.8)	36 (46.2)	39 (50.0)	0.2
Female	3 (1.5)	78 (38.6)	121 (59.9)	
Occupation				
Nursing staff	2 (3.4)	21 (35.6)	36 (61.0)	0.005
Intern nursing	0 (0.0)	8 (72.7)	3 (27.3)	
Nursing student	2 (1.0)	79 (40.1)	116 (58.9)	
Lab technician	2 (15.4)	6 (46.2)	5 (38.50)	
Religion				
Hindu	6 (2.3)	103 (39.8)	150 (57.9)	0.248
Christian	0 (0.0)	3 (37.5)	5 (62.5)	
Buddhist	0 (0.0)	5 (100.0)	0 (0.0)	
Muslim	0 (0.0)	3 (37.50)	5 (62.5)	
Type of family				
Joint	4 (3.1)	49 (38.6)	74 (58.3)	0.494
Nuclear	2 (1.3)	65 (42.50)	86 (56.2)	
Income (Rs.)				
≤10,000	4 (1.6)	103 (41.5)	141 (56.9)	0.281
10,001-20,000	1 (5.3)	5 (26.3)	13 (68.4)	
20,001-30,000	1 (12.5)	4 (50.0)	3 (37.5)	
≥30,001	0 (0.0)	2 (40.0)	3 (60.0)	

The knowledge score of (0-5) was clubbed with average knowledge score (5-11) while performing Chi-square test

Table 2: Distribution of participant's according to their practice regarding hepatitis B infection

Variables	*Number*	*Percentage*
History of contact with known hepatitis B case		
Yes	166	59.3
No	114	40.7
Precautionary measure taken after contact with infected case		
Consult a doctor and vaccinated	100	60.2
Consulted doctor, vaccinated and treatment received	58	34.9
Wait and watch	3	1.8
Nothing	5	3
Recapping needles after use		
Yes	150	53.6
No	130	46.4
Use of needle destroyer		
Yes	251	89.6
No	29	10.4
Vaccinated with hepatitis B vaccine		
Yes	267	95.4
No	13	4.6
Number of doses received		
One	4	1.5
Two	8	3
Three	168	62.2
More than three	86	31.9
Don't remember	4	1.5
Use of sterile gloves while injecting or drawing bloods		
Yes	271	96.8
No	9	3.2
Use of sterile equipments before using		
Yes	271	96.8
No	9	3.2
Discarding the used syringe in		
Safe puncture proof container	237	84.6
Polythene bag	17	6.1
Empty carton box	26	9.3

Table 3: Association of knowledge with practice of the respondent's regarding hepatitis B infection

Variables	Response variables	Knowledge score			*P*
		(0-5), *n* (%)	(6-10), *n* (%)	(11-15), *n* (%)	
History of contact with	Yes	0 (0.0)	60 (36.14)	106 (63.86)	0.001
known hepatitis B case	No	6 (5.26)	54 (47.36)	54 (47.36)	
Measures taken after	Consult a doctor and vaccinated	0 (0.0)	44 (44.0)	56 (56.0)	0.002
contact with hepatitis B	Consulted doctor, vaccinated and medicines taken	0 (0.0)	12 (28.69)	46 (79.31)	
case*	Wait and watch	0 (0.0)	3 (100.0)	0 (0.0)	
	Nothing	0 (0.0)	1 (20.0)	4 (80.0)	
Recap needles after use	Yes	3 (2.0)	54 (36.0)	93 (62.0)	0.209
	No	3 (2.31)	60 (46.15)	67 (51.54)	
Use of needle destroyer	Yes	4 (1.6)	97 (38.6)	150 (59.8)	0.012
	No	2 (6.9)	17 (58.6)	10 (34.5)	
Vaccinated with hepatitis B	Yes	5 (1.9)	108 (40.4)	154 (57.4)	0.309
vaccine	No	1 (7.7)	6 (46.2)	6 (46.2)	
Number of doses taken**	One	1 (25.0)	1 (25.0)	2 (50.0)	0.001
	Two	1 (12.5)	4 (50.0)	3 (37.5)	
	Three	1 (0.59)	67 (39.89)	100 (59.52)	
	More than three	2 (2.33)	33 (38.37)	51 (59.30)	
	Don't remember	0 (0.0)	4 (100.0)	0 (0.0)	
Use of sterile gloves while	Yes	4 (1.48)	110 (40.60)	157 (57.93)	0.000
injecting or drawing bloods	No	2 (22.00)	4 (44.0)	3 (34.00)	
Use of sterile equipments	Yes	5 (1.85)	109 (40.22)	157 (57.93)	0.086
	No	1 (11.11)	5 (55.56)	3 (33.33)	
Discarded the used needle/	Safe puncture proof container	3 (1.27)	95 (40.08)	139 (58.65)	0.158
syringe in***	Polythene bag	1 (5.88)	7 (41.18)	9 (52.94)	
	Empty carton box	2 (7.70)	12 (46.15)	12 (46.15)	

NB: The knowledge of (0-5) for *, ** and *** were clubbed together with average score (6-11) and 0 cells were also clubbed with adjacent row while performing Chi-square test

DISCUSSION:

The present investigation was led under 300 wellbeing specialists in Nishter Hospital Multan. Members included 72.1% of ladies and in the 18-23 age gathering (67.5%) with a normal period of 24.10 (SD ± 7.011) in the scope of 18 to 57 years . This was in accordance with an examination in Islamabad, Pakistan, which utilized 72% of medical attendants and 27.5% of research facility specialists. His age was somewhere in the range of 17 and 59 years with a normal period of 34.38 years. [26] Most of the respondents in this examination were medical caretakers. This was additionally in accordance with an investigation in Kuwait where most respondents were medical attendants and specialists. [27] Professional accessibility during working hours and a more prominent number of divisions and facilities in emergency clinics may clarify why this gathering is more required than research center and different specialists. Most (98.2%) of them reacted to hepatitis B as an infection. A Sindh contemplate in Pakistan found that 67.76% of ladies effectively reacted that the infection is a reason for hepatitis. [28] We found that the majority of them realized that a transmission of hepatitis B through risky sex, tainted blood liquids/body, defiled syringes, needles and extremely sharp steels is conceivable. Bakry et al. announced that 98.6% of medical attendants, 94.8% of research center specialists and 95.7% of different paramedics realized that HBV was transmitted through blood. [29] An investigation from Sindh, [28] Pakistan, demonstrated that 33.88% of HBV transmission through tainted blood transfusions, 40.49% sullied needles, 38.0% did not allude to disinfected instruments and 19 , 0% sex. As indicated by the members, transmission from a tainted mother to a tyke was conceivable and they realized that maternal-to-kid transmission could be anticipated by inoculation (91.8%) during childbirth. An examination directed among Pakistani ladies in Sindh demonstrated that mother-to-youngster transmission could be conceivable (17.35%). Just 42.14% of ladies realized that the antibody was accessible for counteractive action. [28] The degree of learning we found in this examination was very high. This could be because of the way that IEC exercises were performed.

Non-legislative associations like HFT could have contributed past the exercises of the general wellbeing division in such manner. In the present examination, 87.5% realized that three portions of the antibody were totally directed, 79.6% realized that the immunization was long. 168 members (62.2%) had taken three dosages of hepatitis B immunization. Shagufta et al. [26] announced that 57.6% were totally immunized, 18.3% incompletely inoculated and 24% had not been inoculated by any stretch of the imagination. Over half (P <0.001) of HCW was not inoculated against HBV. [29] Jitendra and Jignai revealed that 91.5% of the examination subjects were not inoculated against HBV. [21] Lack of mindfulness and troublesome frame of mind have been distinguished as the fundamental driver of absence of inoculations. [26] In the present examination, 53.6% of respondents utilized needles after use and 89.6% of needles. Bakry et al. announced that 81% of respondents were routinely used to attachment needles after use. [29] The re-fixing of the needle was vital for coincidental fingertip wounds that caused blood-borne maladies, including hepatitis B. counseled, inoculated and sedated specialists; immunized with 3 dosages of hepatitis B immunization. Shagufta et al. (2010) [26] detailed that 53.5% had endured needle wounds in any event 1-5 times during their expert life; 48.1% (99) of those presented to needle-stick wounds knew about post-introduction prophylaxis, while 51.9% did not know standard prophylaxis. 271 (96.8%) wear sterile gloves during injection or blood collection, 96.8% use sterile equipment and 84.6% dispose of the used needle and syringe in the safe-hold container of puncture. Jitendra and Jigna reported that all laboratory technicians (100%) wore gloves among study participants while working in the health facility. [21] This was consistent with our study results.

CONCLUSION:

In spite of good learning, strategies to counteract hepatitis B contaminations were lacking and required further improvement. Reorientation preparing for HCW ought to be led all the time to expand mindfulness and attitudinal changes between them. Further examinations are suggested, including all HCW levels.

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