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HIV POST EXPOSURE PROPHYLAXIS AWARENESS AMONG THE NURSING STAFF

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ABSTRACT: A cross sectional study was carried out to assess the awareness about post exposure prophylaxis for HIV and the prevalence of needle stick injuries among Nursing Staff working at Dr. Shankarrao Chavan Government Medical College, Nanded (Maharashtra) from July 2012 to September 2012. Total 208 Nursing Staff were interviewed. 45(21.6%) nurses had attended training or workshop on PEP. Most of the participants 168(80.8%) knew blood born infections that can be transmitted due to occupational exposure but only 86(41.3%) knew types of exposures for which PEP is recommended. Of the respondents, 76(36.5%) knew that the estimated risk of contracting HIV following percutaneous exposure is 0.3%. First aid measures to be taken after someone encounters needle stick injury at work place were known to 97(46.6%). Just 63(30.3%) were aware of the necessity to start PEP immediately within 1 hour following the exposure. Our study also showed that only 118(56.7%) aware about availability of PEP centre in our hospital and where it is located and 112(53.8%) knew timings of PEP centre. A total of 142(68.3%) nursing staff reported having one or more needle stick injury (NSI) in their career.

KEYWORDS: Post Exposure Prophylaxis, NSI, HIV, Nurses, Awareness.

INTRODUCTION: Post exposure prophylaxis (PEP) is a medical response to prevent transmission of pathogens (secondary HIV prevention) after potential occupational exposure and refers to comprehensive management instituted to minimize the risk of infection following potential exposure to blood-borne pathogens like HIV, HBV, and HCV etc.¹

Infection with Human Immunodeficiency Virus is one of the serious public health problems costing the lives of many people including health workers.² Despite the use of universal precautions (like use of gloves, masks etc.) or rarely when they are not followed, accidental occupational exposure to blood or potentially infectious materials does occur.³ Most common occupational exposures are Needle stick injuries (NSI) which are wounds caused by sharps such as hypodermic needles, blood collection needles, intra venous cannulas or needles used to connect parts of intra venous delivery systems.⁴

Nurses are probably the most commonly exposed health care staff exposed to needle stick injuries and contact with infectious fluids. They also influence the behavior of other health care workers allied with them like the ward boys and cleaners.⁵ Nurses face the occupational risk of parenteral transmission of infection, in particular with HIV, percutaneous exposure to which carries an estimated risk of transmission of 0.3 %.⁶

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Each day thousands of health care workers (HCWs) around the world suffer accidental occupational exposures to blood borne pathogens.² It has been estimated that 2 million needle stick injuries are reported each year and each needle stick has the potential to be infectious.⁴

Preventing the occurrence of HIV infection resulting from such accidental injuries at work place and the use of HIV Post-exposure prophylaxis (PEP) is recommended by NACO/WHO.^{1,7} When administered shortly following exposure, PEP treatment has been shown to reduce the risk of HIV infection by 81%.²

It is important to create a knowledge base about the awareness regarding post exposure prophylaxis(PEP) recommended for prevention of HIV in Nursing Staff so as to help plan adequate training programmes and minimize the risk. The present study was carried out to study the existing awareness regarding HIV Post Exposure Prophylaxis among the Nursing Staff Working in Our Hospital.

AIM AND OBJECTIVES:

1. To study the awareness about post exposure prophylaxis for HIV among Nursing staff working in our hospital.
2. To study the prevalence of needle stick injuries among the Nursing staff.

METHODOLOGY: The present cross sectional study was conducted among nursing staff working at Dr. Shankarrao Chavan Government Medical College, Nanded (Maharashtra-India) during July 2012 to September 2012. A prior permission of the head of the institute was taken and briefed about the objective of the study and institutional ethical clearance was sought. A structured questionnaire that posed questions concerning information regarding Post exposure prophylaxis (PEP) for HIV was designed to assess the knowledge of nursing staff regarding the estimated risk of contracting HIV infection following percutaneous exposure, the time interval between exposure and commencement of treatment, the drugs currently recommended for prophylaxis and the length of time between cessation of therapy and conclusive antibody testing after which the healthcare worker could be assured that they were not infected with HIV etc.

Out of total 285 Nursing staff data was obtained from 208(72.98%) nurses. They were explained about the study, written informed consent was obtained as per the Ethics Committee guidelines and they were requested to answer the questionnaire. Data was collected by interview method.

RESULTS AND DISCUSSION:

(n=208)

Variables	Number	Percentage
Sex		
Male	17	8.2
Female	191	91.8
Age (Years)		
20-29	114	54.8
30-39	47	22.6
40-49	28	13.5
50 and above	19	9.1

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Service (in years)		
Less than 5	138	66.3
5-10	43	20.7
More than 10	27	12.9

Table 1: Socio demographic characteristics of respondent nursing staff

A total of 285 nursing staff were working in our hospital of which 208(72.9%) were interviewed. Remaining 77 could not be interviewed due to various reasons such as on long leave, on medical leave, gone out of station and not willing to participate in the study. Out of 208 interviewed majority were females 191(91.8%) and 17 (8.2%) were male. One hundred fourteen (54.8%) were in the age group of 20-29 years and 138 (66.3%) had service years less than five years. (Table-1)

Variables	Correct response (n=208)	Percentages
Attended CME/Training/Workshop on PEP?	*45	21.6
Which are the Blood born infections?	168	80.8
Which are types of exposures for which PEP is recommended?	86	41.3
First aid measures to be taken after someone encounters needle stick injury?	97	46.6
Risk rate after NSI from HIV positive patient?	76	36.5
The ideal time for taking PEP after exposure?	63	30.3
Do you know for how long PEP is given?	55	26.4
Time between cessation of therapy and conclusive antibody testing?	80	38.5
Where to get PEP in our hospital?	118	56.7
Do you know timings of PEP centre?	112	53.8
Which drugs are given in Basic PEP regimen?	36	17.3
Which drugs are given in Expanded PEP regimen?	00	00.0
Ever had a Needle stick injury in your career?	*142	68.3
Have you used PEP? (n = 142)	*15	10.6

Table 2: Knowledge of nursing staff about Post exposure prophylaxis (PEP) for HIV

* = Yes

The present study shows that only 45(21.6%) nurses had attended training or workshop on PEP. Most of the participants 168(80.8%) knew blood born infections that can be transmitted due to occupational exposure but only 86(41.3%) knew types of exposures for which PEP is recommended. Of the respondents, 76(36.5%) knew that the estimated risk of contracting HIV following percutaneous exposure is 0.3%.

First aid measures to be taken (exposed site must be immediately washed with soap and water) after someone encounters needle stick injury at work place were known to 97(46.6%). Manoj et al and Bosena et al studies reported 66.9% and 55% respectively about first aid measures.^{8,2} Just 63(30.3%) were aware of the necessity to start PEP immediately within 1 hour following the

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exposure and 55(26.44%) knows four week duration of PEP taken for HIV similarly study by Akshay et al stated 61% nurses knows about immediate PEP after exposure.⁹

Our study also showed that only 118(56.7%) aware about availability of PEP centre in our hospital and where it is located and 112(53.8%) knew timings of PEP centre. The time interval after which a healthcare worker can be tested serologically and could consider themselves not infected following exposure to HIV infected material (6 months) was known to 80(38.5%) of participants. Knowledge about the basic and expanded regimens of PEP was very low 36(17.3%) knows two drug of basic regimen and no one knows three drugs in expanded regimen similar results are stated by Akshay et al.⁹

A total of 142(68.3%) nursing staff reported having one or more needle stick injury (NSI) in their career. Pathak et al showed in their study 94.2% nurses acquired needle stick injuries which is higher than our figure.⁴ And just 15(10.6%) nursing staff used PEP after exposure which indicates low HIV post exposure prophylaxis awareness.(Table-2)

CONCLUSIONS: Although preventing blood exposures is the primary means of preventing occupationally acquired Human Immunodeficiency Virus infection, appropriate post exposure management is an important element of workplace safety. The study highlights the low awareness of post exposure prophylaxis measures for HIV amongst nursing staff working in our hospital. The study indicates the need to reinforce the knowledge of nursing staff regarding various aspects of PEP for HIV and to undertake more training workshops for the same amongst nurses.

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