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ORGINAL ARTICLE

Awareness About Post Exposure Prophylaxis Among Health Care Workers

Aravind C., Arul Murugan S*, Senkadhirdasan.D

ABSTRACT

Introduction : With the increasing prevalence of HIV and HBV infection every one especially the health care personnel should be aware of post exposure prophylaxis. Main purpose of this study is to assess the awareness of Post Exposure Prophylaxis in among the health care workers. Methodology: Self administered questionnaire was used to access the awareness and attitude towards post exposure prophylaxis among health care workers. Results: Doctors were well aware about the PEP Regimen and treated earlier ,whenever has history of needle stick injury ,then nurses and lab technicians. 85%, of the nurses and lab technicians were aware about PEP and workers handling waste products are having only 75% knowledge about the PEP regimens. Conclusion: The result of this study shows that we should focus more on creating awareness about PEP among health care workers especially those who are handling bio-waste products.

KEY WORDS : Post exposure Prophylaxis,Needle stick injury,Urine,Saliva,Bio waste products.

Introduction

In the study done at Chandigarh revealed that prevalence of needle stick injury and exposure to blood is 68.2 %, and the main cause for this prevalence is patient overload and accident during emergency care, in which 47.7% health workers were admitted even after post exposure prophylaxis. (1)Over 78 % of doctors and 64% of nurses were injured by needle stick, but incidence among medical technologists were lower to 26 %(3). Hence, more focus had to be done towards the doctors and nurses and the time delaying of the post exposure prophylaxis always plays a major role, but there is lack knowledge about the period at which the drug has to be given.

Also we studied some articles in that we came to know about the morbidity and mortality of exposure to disease. So that we are plan to this convey or educate the importance of pep to all the health care workers we are selecting this topic.

Definition

PEP contain first aid, about counseling, assasing risk factors , laboratory investigations consent of the exposed person and source and

Department of General Medicine,
Sri Lakshmi Narayana Institute of Medical Sciences
(Affiliated to Bharath University, Chennai),
Osudu, Pondicherry
*Author for Correspondence

***Corresponding Author**
Arul Murugan S
Department of General Medicine,
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Pondicherry

following the risk assessment, provide of short term of drugs for as per regmine , along with follow-up evaluation. Organism commonly affecting Health workers:

Post exposure prophylaxis (PEP)is effective in preventing illness after potential or documented exposure to a varity of microbial pathogens and in reducing the risk of secondary spread of infection. Guidelines have been published by the centers for disease control and prevention and advisory committee on immunization practices for proper use of PEP for blood borne pathogens, for microorganism transmitted by either airborne or droplet spread or through direct contact, and for infections acquired after traumatic injuries.(4)

Depending on the type of exposure, different forms of PEP are available, including vaccines, immune globulins, antibiotics, and antiviral medications.Physicians should assess a patient's potential need for PEP based on several factors, including the type of exposure, the timing and severity of illness in the source patient, the exposed person's susceptibility to infectious diseases of conern, and the relative risks and benefits of the PEP regimen in an individual situation. (5)

Objectives

1. To know the awareness about PEP in health care workers
2. Attitude towards PEP among health care workers,
3. To assess the knowledge of PEP among health care workers

4 In the study to known the awareness about PEP programs among health care workers.

5. And also to assess usage of PEP among health care workers.

HBV

According to a study, 91.6% were aware of the HBV vaccine, but only 47.7% were vaccinated, and 48% had needle stick injury. (4). this shows that there is carelessness and knowledge about the consequence and complication of the disease; hence an educational programme had to be done to educate the health workers.

Percentage of risk factors in corresponds to Anti-Hbs titer in HCWs

<10 mIU/mL	-	17%
11-500mIU/mL	-	10%
501-1000mIU/mL	-	52%

HIV

1. It is a RNA virus causes AIDS. It is actively inthe T lymphocytes
2. 20-49years age most commenly affected Incubation period few monthsto 10 year
3. Hiv antibody take 2-12weeks to apper in the blood(window period)

Type of contact	% Risk factor
Deep injury	15
Viable blood on device	6.2
Procedure involving needle in artery or vein	4.3
Terminal illness in source patients	5.6 (8)

RABIES

Rabies is a zoonotic disease caused by RNA virus in family of Rhabdoviridae.

Rabis means hydrophobia

Mainly spread through cats, dogs, jackals, wolves.

Incubaion period1-3 month

Spread to peripheral to central nervous system

Symptoms- They present with prodrmal symptomfor 2-3 days, Aerophobia, spasm of neck and pharynx, lacrimation, salivation, increased respiration. (7)

Mode Of Transmission

1. Bite of infected animals
2. Infected material of affected individual
3. Inhalation of virus containing aerosols
4. Ingestion of raw meat of affected animals

Treatment

Bites or scratch from suspected animal

Contamination of mucous membrane

Open wound with saliva or CNS tissue from Suspected rapid animal

Influenza Virus
It causes influenza,
Mode of transmission:

It usually spread through the air from coughs or sneezes, this commonly affect individuals who are at short distance to patients. It also spread by touching. It result in about 2, 50,000 to 5, 00,000 deaths every year (8)

Post exposure prophylaxis

Tamiflu used as post exposure prophylaxis helped reduce flu transmission by 92 % adults and adolescent patients.

If not vaccinated if patient is able to start prophylaxis within 48 hrs then oseltamivir can be given 36 hrs then Zanamivir

Methodology

Self administered questionnaire was used to access the awareness and attitude towards post exposure prophylaxis among health care workers

In that we are giving 12 questions which mainly focused towards previous experience of post exposure prophylaxis and current knowledge and awarness about post exposure prophylaxis.

In the proforma we are not mentioning names only age, sex and category were mentioned.

In that health care workers are grouped into 3 categories.

1. Doctors
2. Nurses and Lab technicians
3. Workers handling waste products (housekeeping, ward boys and other segregators.

Results

Questionaire is conducted from the 1.doctors 2.staff nurses and lab technicians 3.workers handling waste products. A group of 30bpeople were selected from each above mentioned groups and around 12 questions were asked and the net results is doctors were well aware about the PEP Regimen and treated earlier ,whenever has history of needle stick injury ,then nurses and lab technicians were aware about 85%,and workers handling waste products are having only 75% knowledge about the PEP regimens.

Discussion and Conclusion

To determine the level of awareness and knowledge of HIV postexposure prophylaxis (HIV PEP) and determinants of adequate knowledge among Family Physicians astudy conducted in nigeria ,This was a cross-sectional questionnaire-based survey conducted among 175 Family Physicians at two national conferences. Results were Majority (97.7%) of the respondents was aware of the concept of

HIV PEP and 99.4% believed it was effective in preventing HIV transmission. Over two third of our respondents had been exposed to NSI; however, less than 25% of those exposed received PEP. There was high level of knowledge of the various high-risk body fluids as well as types of high-risk exposures. 93.9% of our respondents knew that HIV PEP should commence within 1 h of exposure, 83.3% knew the correct duration of HIV PEP, but only 57.0% knew the ideal PEP regimen for high-risk exposures. The total mean score for our respondents was 17.8±2.9 with 79.4% having an adequate score. Being a junior doctor and male sex were associated with adequate knowledge. Conclusion: This study shows that despite high levels of awareness and knowledge of HIV PEP, access to its use among family physicians in Nigeria is still sub-optimal.

Then, study conducted in ethiopia concluded as,: In general, findings of the quantitative and qualitative study revealed that the knowledge of health workers about post exposure prophylaxis against HIV is inadequate. Though many of the studied health workers had HIV risk exposure, only few used post-exposure prophylaxis. Therefore, establishing a 24 hours accessible formal post-exposure prophylaxis centre with proper guideline is recommended. Health institutions are also advised to raise awareness of their employees on post exposure prophylaxis.

With the HIV/AIDS epidemic spreading, health care providers (HCPs) in China are facing a growing risk of occupational exposure to and infection with HIV. There is a need to describe occupational exposure cases and compliance with postexposure prophylaxis (PEP) guidelines among HCPs. Qualitative in-depth interviews were conducted with 33 HCPs in Yunnan Province, China. Information about occupational exposures the HCPs and their co-workers experienced was collected and analyzed using ATLAS. ti. Most occupational exposure accidents happened during emergencies, when HCPs did not have time to consider self-protection. Exposure to HIV caused exposed HCPs severe adverse psychological pressure, such as stress and anxiety. Compliance with PEP guidelines among participants was poor; barriers to better compliance were identified. This study underscored the importance of institutional support in promoting compliance with PEP guidelines among exposed providers. Further training and emphasis on universal precautions and PEP guidelines may reduce the risk of occupational infections.

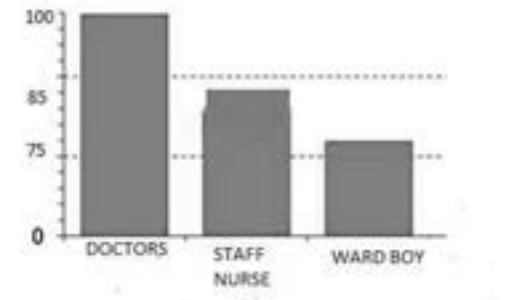
In india, questionaires were set up in the form of

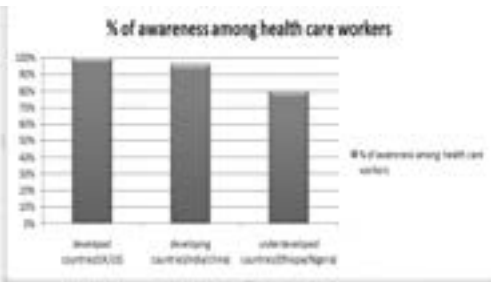
1. What two first aid procedure should you perform to the needlestick site?
2. How soon after a high risk needlestick injury should PEP commence?
3. What percentage of needlestick injury cause HIV/HEP B
4. Can hiv/hep B Transmited by Skin contact/Urine/Saliva
5. Is HIV can spread by mosquitoes /from contaminated water/food prepared by them
6. Is PEP regimen required for intact skin contact?
7. Can PEP regimen be given during pregnancy/lactation?
8. Have you attended any training about PEP regimen?
9. According to you what is the best time to start PEP regimen following exposure?
10. Is opportunistic infection common in HIV?
11. What is the maximum delay to take PEP regimen?

12. Could we prevent hiv/hep b transmission?

Nearly 99.9% physicians were well trained with pep regimen and its significance.paramedical staffs are also knowledgeable regarding pep regimen about needle stick injuries. Others, like housekeepings, ward boys have to be trained for pep regimens ,to prevent from occupational transmission of these infectious diseases.

Conclusion





Completed questionnaire were obtained from 30 doctors, 30 paramedical workers like staff nurse and lab technicians, 30 housekeeping, ward boys and other segregators. About 100 % of doctors were aware about the PEP REGIMEN and its safety to prevent disease and about 85% of paramedical staffs were knowledgeable about PEP regimen, and around 75% housekeeping,ward boys and others were aware about the PEP regimen.

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