



International Journal of Research in Pharmacology & Pharmacotherapeutics



ISSN Print: 2278-2648

IJRPP |Vol.7 | Issue 2 | Apr - Jun - 2018

ISSN Online: 2278-2656

Journal Home page: www.ijrpp.com

Research article

Open Access

To study the knowledge, attitude and practice of health care providers on H.I.V post-exposure prophylaxis in a tertiary care hospital, Guntur

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ABSTRACT

Introduction

Post exposure prophylaxis (PEP) of HIV is only way to reduce the risk of HIV after potential exposure. This study was conducted to assess the knowledge, attitude and practice regarding PEP of HIV among medical fraternity in KMCH.

Objectives

To assess the awareness on HIV-PEP

-To study the attitude and practice of health care providers on H.I.V- PEP

Methodology

A prospective, semi-structured questionnaire based study of 14 questions was conducted. Knowledge was assessed by taking mean correct answers of 5 knowledge based questions and categorised as good (4≥correct answers), moderate (2-4 correct answers) and poor (<2 correct answers) Participants PGs, faculty and interns. Data collected was analysed statistically

Results

A total of 280 members participated in the study, 99% heard about HIV-PEP. Mean knowledge score of house surgeons, post graduates and medical faculty was found as 4, 4.2 and 4.7 (for a total of 5) Whereas mean attitude score was 4.7, 4.5 and 4.7 (for a total of 5) and mean practice score was found as 2, 3 and 3.7 (for a total of 4) respectively respectively. 98% believed that health care providers were at risk of exposure to HIV.

Conclusions

The knowledge & attitude of H.S, P.G & faculty is good. Practice of P.G & faculty is also good, house surgeons found to be moderate, emphasising the need to conduct awareness programs especially to house surgeons in all aspects of PEP, without restricting to drug therapy.

Keywords: Awareness, Post-exposure prophylaxis HIV, Health Care Providers

INTRODUCTION

HIV and AIDS are well established problems, particularly in India. India has about 2.1 million people living with HIV, the third largest population of people infected with the virus. [1] Approximately about one thousand cases of accidental exposure to HIV are reported every year. [2]

The CDC estimates that more than 385,000 sharps related injuries occur in hospitals each year. [3] This shows the potential risk to the medical fraternity in getting injured from the sharp instruments.

The advent of Antiretroviral Therapy (ART) has significantly improved the management and prevention of HIV infection including those at risk through programmes such as the PMTCT (Prevention of Mother to Child Transmission) [4], PEP (Post exposure prophylaxis) [4] and more recently PrEP (Pre exposure prophylaxis). [4, 5, 6]

PEP consists of administering a short course of ART to reduce the likelihood of sero-conversion and following events with high risk of exposure to HIV. [7] The overall PEP process involves first aid, counselling, risk assessment, relevant laboratory investigations with the consent of the exposed individual and source, followed by provision of a short course of ART for a period of 28 days, and monitoring. [7, 8]

OBJECTIVES

To assess the knowledge of post-exposure prophylaxis (PEP) for HIV in medical fraternity, which is an important strategy for preventing HIV among Health care providers. To study the attitude and practice of health care providers on H.I.V post-exposure prophylaxis

MATERIALS AND METHODS

The present study was a cross sectional study and a semi structured questionnaire based study. Institutional Ethical Committee clearance was obtained prior to the beginning of the study.

Participants include House surgeons, PGs and faculty of a tertiary care hospital, Guntur. Details of the survey and purpose of conducting it are explained to the participants and Informed consent was taken from the participants. All the participants who gave consent were included and who didn't give consent were excluded. The participation is voluntary and without any force.

Questionnaire consist a total of 4 parts

- Part-A: Socio-Demographic Details including Age, Gender, Marital Status and their designation.
- Part-B: This section assessed knowledge regarding post exposure prophylaxis (PEP) of HIV. It consists of 5 questions.
- Part-C: This evaluated their attitude towards PEP-HIV. It includes 5 questions.
- Part-D: This assessed their practice towards PEP-HIV. It contains 4 questions.

Statistical Analysis

The data obtained was entered in Microsoft Excel sheet and descriptive analysis of socio-demographic data was done considering age, gender, marital status and designation. For dichotomous variables like gender, marital status and designation, results were expressed in frequencies and percentages and for continuous variables like age, results were expressed as mean and standard deviation.

RESULTS

289 participated in the study, out of which 112 were Interns, 60 were Post-Graduates and 117 were medical faculty.

Socio-Demographic Details

A total of 289 members participated in this study, of which 190 (65.7%) were males and 99 (34.3%) were females. Most of them are in the age group 20-30 years. (Table-1)

TABLE 1: Socio-Demographic Characteristics

S.No.	Variables	Response (%)
1.	Age	
	20-30 years	162 (56%)
	30-40 years	68 (23.5%)
	>40 years	59 (20.5%)
2.	Gender	
	Male	190 (65.7%)
	Female	99 (34.3%)
3.	Marital Status	
	Single	130 (45%)
	Married	159 (55%)
4.	Designation	
	Intern	112 (38.8%)
	Post Graduate	60 (20.8%)
	Faculty	117 (40.4%)

Knowledge on PEP**TABLE 2: Knowledge on PEP-HIV**

S.No.	Question	Response	Interns (n)	Post Graduates (n)	Faculty (n)	Total (%)
1.	Awareness of the availability of HIV PEP	Yes	109	60	117	286
		No	2	0	0	(99%)
						2 (1%)
2.	Best timing for commencement of HIV PEP	<72 hrs	103	60	117	280
		>72 hrs	9	0	0	(97%)
		Don't know	0	0	0	9 (3%)
						0 (0%)
3.	Currently recommended 2 drug regimen for HIV PEP	a) Zidovudine & Lamivudine	92	60	117	269
		b) Zidovudine & Stavudine	14	0	0	14
		c) Lamivudine & Stavudine	6	0	0	(5%)
						6 (2%)
4.	Duration of PEP drug regimen	a) 4 wks	69	33	95	197
		b) 6wks	26	18	15	(68%)
		c) 8wks	17	9	7	59
						(20%)
						33 (12%)
5.	Timing of antibody testing to rule out infection to health care worker	a) 4-6 wks	56	24	45	125
		b) 3 months	28	18	54	(43%)
		c) 6 months	16	6	9	100
		d) Nil	12	12	9	(35%)
						31 (11%)
						33 (11%)

Attitude**TABLE 3: Attitude on PEP-HIV**

S.No.	Question	Response	Interns (n)	Post Graduates (n)	Faculty (n)	Total (%)
1.	Health care providers are one of the highly exposed people for HIV infection	Yes	84	60	108	252
		No	28		9	(87%) 37 (13%)
2.	For a HIV patient you will	Provide treatment	100	54	114	268
		No response	12	6	3	(93%) 21 (7%)
3.	Have you ever attended/ treated a HIV +ve patient	Yes	40	45	102	187
		No	72	15	15	(65%) 102 (35%)
4.	Attended lecture or seminar on HIV PEP	Yes	64	45	115	224
		No	48	15	2	(76%) 65 (24%)
5.	If no, are you interested to attend	Yes	46	14	1	61
		No	2	1	1	(22%) 4 (2%)

Practice**TABLE 4: Practice on PEP-HIV**

S.No.	Question	Response	Interns (n)	Post Graduates (n)	Faculty (n)	Total (%)
1.	Have you ever been exposed to potentially infectious material	Yes	28	39	60	127
		No	84	21	57	(43%) 162 (57%)
2.	Needle stick/ cut with sharp instrument (percutaneous) injury experienced while treating a HIV positive patient	Yes	8	6	15	29
		No	104	54	102	(11%) 260 (89%)
3.	If experienced, then have you sought advice about PEP	Yes	4	4	14	22
		No	4	2	1	(8%) 7 (3%)
4.	If not experienced, are you aware whom to approach on accidental exposure	Yes	32	21	63	116
		No	72	33	39	(40%) 144 (49%)

DISCUSSION

In the present study, 99% of the total participants heard of Post Exposure Prophylaxis (PEP)- HIV. It was high when compared with a study done in

Ethiopia by Birhanu Alemu et al., [9] where 88.8% of the participants heard of PEP-HIV.

Regarding the best time for commencement of PEP-HIV, in the present study 97% stated PEP

should be initiated within 72 hours of exposure. This result is more when compare to Birhanu Alemu et al., [9] study in which 65.7% gave the correct response.

This present study shows 68% of participants were aware of the duration of the PEP-HIV drug regimen as 4 weeks (28 days) which is high when compared to a study by Mercy Okoh et al., [10] at Nigeria in which 63% were aware of the length of time to take PEP.

93% of total participants in the present study stated that they will provide treatment to HIV +ve patients without deny.

65% of the participants in this study attended lecture on PEP, which is high when compared to 22.2% in Mercy Okoh et al., [10] study and 26.7% in Birhanu Alemu et al., [9] study. This signifies the good attitude of the participants in the present study.

In the present study, 11% (n=29) of the participants experienced needle cut injury while treating HIV patients. This result is low when compared to other studies where, 33.8% participants of Mathewos B et al., [8] study and 74.5% participants of Tetali et al., [11] study experienced

needle cut injury. The same result is observed with a study done in Italy [12], in which 11.3% participants experienced needle cut injury.

Out of 29 participants who experienced needle cut injury when treating HIV patients, 22 (75%) participants sought PEP which is similar to a study by Mathewos B et al., [8] in which 74.2% of the needle prick experienced participants sought PEP.

CONCLUSION

- The Knowledge and attitude level of the participants regarding PEP-HIV is good.
- The attitude of the participants towards treating HIV positive patients is good.
- Though the rate of exposure to HIV infection is not high it cannot be considered low and some of the exposed persons didn't seek PEP.
- Availability of PEP and display of posters that remind their availability is required.
- New strategies and standardized protocols must be developed to reduce the occupational exposure of Medical fraternity to HIV.

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