

**AWARENESS OF HEPATITIS C IN KARACHI, PAKISTAN**

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**ABSTRACT**

**Objective:** Hepatitis C is the infection of liver caused by hepatitis C virus. Many people who are infected with this virus have lack of awareness regarding this disease. **Methodology:** A descriptive study was conducted aimed to analyze the awareness and understanding of hepatitis C virus among pharmacy and medical students of final year in Karachi. A total of n=200 questionnaires were distributed out of which the response rate was 93%. **Results:** It was observed that majority respondents (96.90%) had heard about hepatitis C from various sources and more than 70% knew that it can be transmitted and can be prevented. 95.20% agreed that blood transfusion of an infected donor

can transmit the disease; 78.40% affirmed that the disease can be transmitted by being struck with a needle or sharp instrument that has Hepatitis C-infected blood on it. The questionnaire was found helpful by more than 65% respondents. **Conclusion:** There are some misconceptions and inadequate information about hepatitis C among the students which can be overcome by educating them thoroughly and making them aware through various modes.

**KEYWORDS:** Hepatitis C, Knowledge, Awareness, Virus.

**INTRODUCTION**

HCV virus is a startling problem in Pakistan and worldwide. It is characterized by liver damage (cirrhosis) and is most often the leading cause of liver transplantation and hepatocellular carcinoma eventually leading to death of the patient.<sup>[1]</sup> HCV is the most frequent blood-borne pathogen that predominantly spreads through injection of illicit drugs, via blood transfusion and organ transplant, dental procedures, piercing and tattooing and also by

sharing personal items like toothbrushes or razors with blood on them.<sup>[2]</sup> It does not spread via casual contact, respiratory droplets, sharing food or through mosquito bites. Physicians, dentists, nurses, laboratory staff, medical interns are at a higher risk of contracting this disease as they come more into contact with blood.<sup>[3]</sup> HCV is asymptomatic i.e. clinically silent or also known as subclinical infection.<sup>[4]</sup> There are 170-200 million people worldwide suffering from HCV<sup>[5]</sup> out of which 17 million belong to Pakistan.<sup>[6]</sup> Every year approximately 350,000 people die from HCV.<sup>[7]</sup>

Signs and symptoms of acute HCV are not definitive as they are similar to any other viral infection. Most common indication is abdominal discomfort, nausea, fever, fatigue, jaundice, joint pain, muscle ache and clay colored stool. Chronic hepatitis C virus can lead to liver cirrhosis, liver failure and even hepatocellular cancer. Hepatitis C virus can be diagnosed by a simple blood test HCV antibody test which is usually followed by HCV RNA (PCR) blood test to determine the existence of the virus.<sup>[8]</sup> Therapeutic regimen includes antiviral drugs like sofosbuvir, paritaprevir, ritonavir, ombitasvir, ribavirin, simeprevir, dasabuvir. When it comes to hepatitis C, treatment is prevention. Other means of prevention include abstaining from smoking and alcohol, maintaining ideal weight, substituting ibuprofen with acetaminophen.<sup>[8]</sup>

The disease itself is remediable. Antiviral HCV treatment that is available leads to disease suppression hence reducing mortality and morbidity rate but it is highly priced, distressing, noxious and most of the time either not successful or completely inefficacious.<sup>[9-11]</sup> Therefore, it is necessary to come up with more satisfactory means of prevention of transmission as most of the population at risk is ignorant of their diagnosis or the preventive measures are overlooked due to defiance of IDUs (injection drug users), distress in locating them and the suppressed dishonor/shame. They face intolerance on the hands of healthcare professionals, friends and family members.<sup>[12,13]</sup> Such behavior is an indication of a lack of knowledge and a common fear of contacting the virus themselves.

A survey conducted in Sindh, Pakistan found that people's understanding of the risk factors of HCV virus was inadequate. Their firm belief in the rapid action of injections puts them at a higher risk of becoming infected.<sup>[14]</sup> Another survey conducted in Rawalpindi and Islamabad, Pakistan discovered that awareness regarding HCV was low among barbers and their habit of reusing razors was disturbingly common.<sup>[15]</sup> Proper Awareness, positive approach and co-operative behavior of the healthcare professionals has an important role in the prevention and

detection of disease.<sup>[16]</sup> The main objective of this survey is to find out the extent of knowledge towards HCV infection among final year students and their concept about the disease.

## METHOD

A descriptive study in Karachi, Pakistan was done on self-administered questionnaire containing 18 different questions covering the main aspects of hepatitis C. The age group of the participants was from 23 to 27 years and the response rate was 93% out of n= 200 questionnaires. The data was then calculated by using SPSS version 16.0 using descriptive statistics.

## OBSERVATIONS

## RESULTS AND DISCUSSION

S. No	Questions	YES	NO	Don't Know
1	Have you ever heard of Hepatitis C	96.90%	3.10%	0%
2	Have you received information about Hepatitis C in the past 12 months from any sources i.e. media, family, friends, and healthcare providers.	67.20%	32.80%	0%
3	Do you know that Hepatitis C can be transmitted from person to person	79.20%	8.80%	12.0%
4	Do you know how Hepatitis C is spread	66.40%	28.80%	4.80%
5	Do you have awareness of transmission of Hepatitis C from mother to fetus	73.60%	7.20%	19.20%
6	Do you have awareness about its prevention	73.40%	13.80%	12.80%
7	Were you tested for Hepatitis C	18.40%	75.20%	6.40%
8	Does Hepatitis C stop the liver to work	72.0%	9.60%	18.40%
9	Can blood transfusion of an infected donor transmit the disease	95.20%	1.60%	3.20%
10	Does the person with disease looks or feels fine	23.20%	67.95%	8.85%
11	Can the disease be transmitted through injecting illegal drugs	40.80%	27.20%	32.0%
12	Can the disease be transmitted while working with a Hepatitis C carrier	61.20%	23.60%	15.20%
13	Can the disease be transmitted by being struck with a needle or sharp instrument that has Hepatitis C-infected blood on it	78.40%	20.0%	1.60%
14	Can the disease be transmitted by shaking hands with someone who has Hepatitis C	28.3%	53.7%	18.0%
15	Do people with Hepatitis C carry the virus throughout their life	44.80%	24.0%	31.20%
16	Did you suffer from Hepatitis C	2.40%	91.20%	6.40%
17	Do you have awareness about availability of Hepatitis C vaccines	59.2%	24.80%	16.0%
18	Is this questionnaire helpful for your information	67.20%	19.20%	13.60%

The outcome of a higher overall awareness is associated with the fact that the respondents were final year students of pharmacy and medical field. The positive aspect of the survey is that more than 65% of the respondents found the questionnaire to be useful which would contribute towards further spread of Hepatitis C awareness and hence prevention.

Awareness of Hepatitis C amongst individuals was high overall; though there were certain misconceptions among the respondents. This brings into question the amount of knowledge being provided to health care workers and students about the disease that is currently affecting approximately 10 million Pakistanis today.<sup>[17]</sup> 67.20% respondents received information about Hepatitis C in the past 12 months from different sources; this brings to light the possible neglect by various Health Care Professionals towards provision and spread of awareness of Hepatitis C.

In fact the major cause of Hepatitis C spreading so rapidly in the Pakistani population is deemed to be the carelessness or rather “lack of education and awareness of the disease, shortage of medically qualified and scientifically trained health care workers and lack of health infrastructure.”<sup>[18]</sup> This may lead to a reduced emphasis on screening of blood and testing of Hepatitis C in general as can be seen through the results that some respondents (23.20%) think that a patient suffering from Hepatitis C looks and feels fine.

Regarding transmission of Hepatitis C, blood transfusion remains one of the greatest causes of transmittance. Despite Hepatitis C virus detection being a crucial part of blood screening this is sometimes limited in developing countries due to lack of resources and other technicalities. Pakistan unfortunately, comes under this category and despite awareness of disease transmission through blood transfusion being high (95.20%), the mismanagement and scarceness of medical facilities contributes highly to the spread of Hepatitis C via blood transfusion of infected donor and the accidental “needle prick” method.<sup>[19]</sup>

A few misconceptions are noticeable in the population with around 61% believing that the disease spreads by working with infected patient and almost only 40% of the respondents being aware of the risk present in transfer of disease through use of illegal drugs, that is, drug abusers who use the same needle to inject a narcotic or illegal substance. This is one of the biggest causes of concern since a recently published article<sup>[20]</sup> highlights that nearly 8 million of the 170 million people in Pakistan are a victim of drug addiction and abuse with around 700 deaths due to drug related problems every day; the possibility of transmission and

occurrence of viral diseases, Hepatitis B and C in particular, is high in individuals with a history of drug addiction and abuse.<sup>[21]</sup> The uncontrollable nature of these individuals along with the vast population statistically recorded makes this a red sign in the fight against Hepatitis C. The severity of this disease is being clearly underestimated since less than 50% of the respondents are aware of the fact that Hepatitis C is a lifelong disease. Ignorance towards this information leads to carelessness and spread of disease which in turn can increase the socio-economic burden of a country.

## CONCLUSION

There are certain misconceptions and some lack of knowledge about hepatitis C which can be overcome by proper education and introduction of specific programs through social media, seminars and also by provision of free hepatitis blood screenings at least once a year for early detection. The introduction of training in universal precautions cannot be neglected as there is scarcity of safety equipment, safety instructions and staff vaccination programmes. Awareness is, therefore, crucial for prevention and spread of the disease.

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