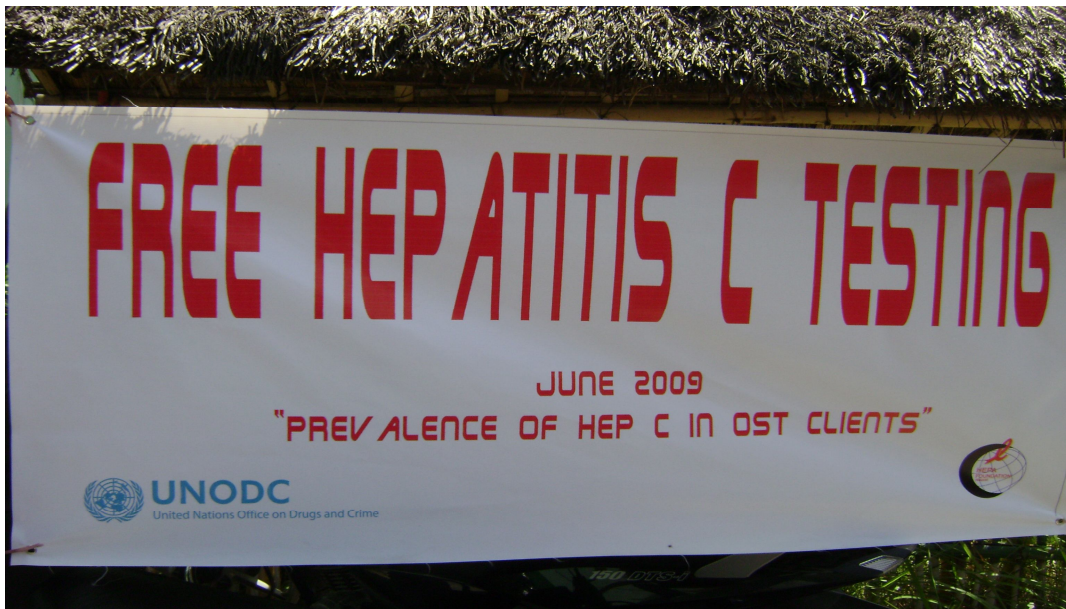


**PREVALENCE
OF
HEPATITIS C
In OST Client**



UNODC

United Nations Office on Drugs and Crime

Abbreviations.

HCV- Hepatitis C virus.

OST –Oral Substitution Therapy

DUs- Drug Users

IDU –Injecting Drug Use /Injecting Drug User

HIV- Human Immuno Virus

AIDS- Acquired Immune Deficiency Syndrome

CSO- Civil Society Organizations.

PWID –People who Inject Drugs.

SLC – school Leaving Certificate.

NGO-Non-Governmental Organization

H F –Hepa Foundation

EXECUTIVE SUMMARY.

The main aim of this study was to investigate the prevalence of Hepatitis c (HCV) among the Injecting Drug Users on Oral Substitution Therapy (OST) in Kathmandu Valley as well as the burden of Hepatitis C among these clients receiving OST from Trivhuwan University Teaching Hospital in Nepal. The study intends to use the findings for the development and further improvement of prevention programs on Hepatitis C among injecting drug users in Kathmandu. Hepatitis C, is one of the 'hidden' public health problems in Nepal and Injecting drug use just like in other parts of the world is the leading risk behaviour for transmission of HCV through sharing of contaminated injecting equipments among people who inject drugs. Intravenous drug use in Nepal as in many parts of world is increasing, which increases the spread of HCV virus especially within closed cohorts.

The survey conducted by HEPA Foundation among 118 OST clients and 82 Non- OST IDUs in June 2009 in Kathmandu valley indicates 80.5% HCV prevalence among OST entrants and 57% among Non-OST IDUs. Nearly 49% of the IDUs sampled in the survey had used different types of drugs while they were under OST. While a significant proportion of them are involved in a sex practices, condom use was found to be high, at 60.6%. The report concludes that apart from the loss of life, the prevalence rate of HCV among IDUs in Kathmandu Valley is high and this need to be appropriately checked. The disease is also increasingly making considerable demands on the health system in the country. It recommends the need to create an enabling environment for HCV education, prevention programs, policy dialogues and related measures to put the endemic under control, CSOs and government engagements and further social research on the subject. As the viruses are spread through direct contact

between individuals, changing the factors that contribute to their transmission may be useful in controlling the epidemic.

INTRODUCTION

A. Hepatitis C: Meaning and Global Scenario.

Hepatitis C (HCV) is a serious global Health problem. According to the World Health Organization(WHO), which describes HCV as a “viral time bomb,” 130 million people have chronic hepatitis C, and 3 to 4 million more become infected each year (WHO 2007). if untreated, or unresponsive to treatment, chronic HCV leads to cirrhosis in 20%30% of people. Each year, -4% of people with hepatitis C-associated cirrhosis develop liver cancer, and -65 will experience liver failure (Di Bisceglie 2000). WHO estimates that up to 75% of liver cancer and -65% of liver transplants occurring in the developed world are attributable to chronic HCV infection (WHO 2007). Hepatitis C is one of the 10 leading causes of infectious disease deaths worldwide (Hepatitis C challenge: Caring Ambassadors HepC program, Inc).

Hepatitis C just like AIDS is caused by blood borne viruses. The disease causes long term illnesses and can often be fatal. Apart from the loss of life, the disease phase also makes considerable demands on the health system. Over 200 million of the world populations are infected by HCV and is a significant cause of morbidity or mortality due to Cirrhosis and hepatocellular carcinoma. The infection is high in Asia and African countries than European and American. The death rate of liver cancer and liver failure is high on PLWHA who are co-infected with Hepatitis C. HCV is caused by Hepatitis C virus which was identified in 1988.¹ In 1970's virus was appears in enough people to be noticed, it was known as 'non-A, non-B or transfusion related hepatitis'. A test to screen

for antibodies to the hepatitis C virus was introduced in 1990. Prior, up to 10% of new infections resulted from blood transfusion and receipt of blood products.

Research has shown that approximately 15%-25% of people with hepatitis C will clear the virus within 2 to 6 months of becoming infected. However, they will continue to carry antibodies and these antibodies do not protect against re-infection. The 75%-85% infected who do not clear the virus will have chronic infection. After 20 years, approximately 7% of the people with chronic hepatitis C will develop cirrhosis. This rises up to 20% of people after 40 years². The main routes of infections are parenteral, intravenous drug users, contaminated injecting devices and recipient of unscreened blood and blood products³. Intravenous drug use is one of the most common modes of transmission of Hepatitis C virus. Approximately, 170 million people are affected globally each year⁴. In Nepal, Sero-prevalence of anti HCV in general population of Nepal has been estimated to be from 0.1%-1.7% and in IDU 94% in the previous studies (see Sawayama, 1999⁵; Nakashima, 1995⁶; Shrestha, 1998⁷). 96% of IDUs are infected with Hepatitis C in Nepal and in others are through blood transfusion, unsterilized syringe, needle among others.

GENERAL AND SPECIFIC OBJECTIVES OF THE STUDY.

The main focus of this study was to find out the Hepatitis C status from the clients of Oral Substitution Therapy (OST) with the intention of using the findings of the research in the development programs for further prevention of Hepatitis C among drug users in Kathmandu, Nepal, one of the hidden public health problems in the country. Specifically, the study undertook to investigate the prevalence of Hepatitis c (HCV) among the Injecting Drug Users on Oral Substitution Therapy (OST) in Kathmandu

Valley as well as the burden of the disease among these clients receiving OST from Trivhuwan University Teaching Hospital¹ in Nepal. Though the study was conducted on IDUs on OST in Kathmandu Valley, it elicits the need to conduct a national survey on the HCV situation and forms bases for policy dialogues, government and other health actors' engagement on how to address the problem.

STATEMENT OF THE PROBLEM.

Injecting Drug Use (IDU) behaviour has been studied extensively in Nepal, but there are relatively no studies carried out on HCV prevalence among injecting Drug Users (IDUs) under OST. Although very high prevalence of HCV among Injecting drug users has been noticed, there has been no tangible effort to collect, interpret and analyze current data and study the intersections of HCV with Injecting drug use with specific focus on OST clients in Nepal. This study therefore sought to fill in this gap and provides some estimates for the prevalence rate and correlations associated with HCV prevalence among OST clients in Kathmandu.

SIGNIFICANCE OF THE STUDY.

In Nepal, the sero-prevalence of Hepatitis C among Injecting drug users has been found to be roughly 94% (Shrestha, 1998)⁸. This not recent and currently, there is no national data on HCV prevalence rate. It is widely acknowledged that the prevalence of Hepatitis C infections is continuously increasing among injecting drug users in Nepal as well as in various part of the world. Developed countries have responded well to the disease and have been keen to alter its spread. However in Nepal, Hepatitis C has not

¹ *The Hepa Foundation is a non-profit and non-partisan organization which is working in the field of viral HEPATITIS C. Hepa Foundation is only organization working for hepatitis C in Nepal.*

been given the necessary attention and awareness it deserves by the health sector (including the CSOs working in the sector) and or the government. Hepatitis C is missing element neither is covered by the National HIV/AIDS Strategy nor factored under Opportunistic Infections in the country. The prevalence of Hepatitis C among injecting drug users is increasing day by day and most of injecting drug users are co-infected with HIV and or Hepatitis C and the need to examine the trends,

AS IDUs are vulnerable member of the society, it is important to assess the Hepatitis C status among IDUs to enable the social and health workers to plan for further prevention of Hepatitis C among IDUs populations. As the study divulged, most of the IDUs on OST examined in the study knows their HIV status but very few OST clients know about their Hepatitis C status. So this study attempts to assess the status of Hepatitis C among IDUs who are on OST. This study therefore endeavored to examine Hepatitis C prevalence rate among OST clients in Kathmandu in order to gather evidence and data on the prevalence and trends and point the need to address the factors that contributes to the transmission to control the epidemic in Nepal.

METHODS OF STUDY.

This study was designed to collect both behavioral and sero sample for testing HCV infection among IDUs. The need to provide information on demographic features and individual behavior to assess risk factors among IDUS in Nepal was factored in. A total of 118 IDUs under OST and 82 Non-OST IDUs were included in the sample. A structured questionnaire was used to collect information and behavioral data relating to drug injection and sexual behaviour among the IDUs under OST. For the detection of HCV antibody, the Enzyme Linked Immuno Sorbent Assay [ELISA] was used and

about 5 ml blood was used to assess status of Hepatitis C. Informed oral and witnessed consent of the study participants was obtained before conducting the interviews and collection of blood samples. The study was conducted in compliance with both ethical and human rights standards which included participants' anonymity and pre and post test counseling and approved by the **Nepal Health Research Council [NHRC]** prior to its initiation.

The study variables for the survey included age, sex and educational background, employment status, residence knowledge of HCV, drug used among IDUs under OST, marital status, treatment history or programs before joining OST program and past behaviors. Parents' occupation as well as their education status was also sought. 200 Injecting Drug Users and on Oral Substitution Therapy (OST) were sampled. Study sites selected included two operation sites of HEPA Foundation in Kathmandu valley, the only ones [one methadone and one Buprenorphine] in Nepal.

LIMITATION OF THE STUDY.

One major limitation of the study is that it includes only OST and IDUs clients seeking medical attention from HEPA Foundation and therefore the findings of the study cannot be generalized to represent the national scenario. Another limitation is the inability to segregate the data collected on gender basis and make meaning on the prevalence rate separately.

RESULTS & KEY FINDINGS.

A. High HCV prevalence among OST client:

Of the 118 OST entrants, reactive HCV was noted in 80.5 percent of this population. An analysis of predictors of HCV positivity indicated that injecting drug users, who shares injecting equipments, any age groups, or individuals with past or present drug using history were significantly more likely to be positive for HCV. The data collection tools were designed to single out among other variables Age, Sex and Educational Background. The population sampled was predominantly male in early 30s (54.6 %) and 45.2% of them have only attained School Leaving Certificate. This clearly states that the proportion of “literate” IDUs is low.

B. Social Dynamics

The study divulged that a Significant number of IDUs are unemployed, nearly 58. 2% are jobless. This partly can be attributed to a leading cause to social deviations and engagements in Drugs Use and consequently drug abuse. **Knowledge on HCV** was also found to be uniformly low, with the majority of IDUs 81.3% reporting having never heard about HCV. **Drug & alcohol use among IDUs under OST was found to be very common among IDUs:** All respondent demonstrated significant drug and alcohol use. Nearly 48.9% reported using alcohol and drugs while they were in OST treatment while 97 percent reported using alcohol within one month time interval. With regards to HIV (and other BBI) exposure risk behaviors associated with injection drug use and criminal related activities, over 67.2 % of IDUs sampled in the study have been arrested by police and 23.6 percent are put in jails at one time due to the use of illicit drugs. It's also clear that a **significant number of IDUs is unmarried**, as 50 percent of respondents are unmarried. The finding form the study also showed that 50.9% of IDUs attended

different treatment programs before joining OST program offered by HEPA Foundation.

DISCUSSIONS & INTERPRETATION OF RESULTS.

In addition to being a potential source of ongoing HCV transmission, Injecting Drug Users OST patients may have poor adherence to health care regimens, high rates of comorbid psychiatric illness, psychosocial instability, and poor health literacy. The majority of drug users struggle to just get HCV screening tests and hepatitis A and B vaccinations, and referrals for virologic testing, liver biopsy, and hepatitis C treatment are often remote if not nonexistent options.

Of the 118 OST entrants, reactive HCV was noted in 80.5 percent of this population. These patients may have poor adherence to health care regimens and constant ill-health problems may have forced them to seek OST treatment. The study showed that the majority of IDUs from Kathmandu valley on OST in Hepa Foundation are predominantly male below 30 yrs (54.6%). 45.2% of these IDUs have only attained School Leaving Certificate which clearly states that the proportion of literate IDUs is low. Due to low level of formal education, this young population has limited chances of acquiring meaningful employment and struggles with the unemployment problems which partly lead to drugs seeking or using behaviors. More 58.2% reported to be jobless. While 50% of the respondents were unmarried, significant proportion of these IDUs indicated involvement in sex practices and condom use was found to be quite is low. Knowledge of HCV was found to be low among the IDUs despite their age, educational background and marital status. 39.4% have heard about HCV but have very little information about the disease, while the majority, 81.3% have never heard about it.

This means that there is need to create an enabling environment for dialogue on the subject, establish effective HCV education and prevention programs and CSOs and government engagements to put the endemic under control. Majority of IDUs, 67.2% have been arrested by police and 23.6% have been put in jail while using illicit drugs .Many IDUs 50.9% attended different program before joining OST program.

CONCLUSION/RECOMMENDATION

Injecting Drug Users may bridge HCV infection within and outside OST networks as they frequently inject drug and share injecting equipments. In Nepal therefore, there is a growing need to establish Hepatitis C as a public health issue in HIV/AIDS policies and programs and to develop and strengthen its link with Drug and HIV policies, programs and practices. Reduction of transmission of HCV through education, improved awareness of risks and access to harm reduction programs is recommended. In the mean time, it is essential to maximize the health and well being of people living with HCV by providing equitable access to appropriate testing, treatments, information and support services

There is need to create an enabling environment for HCV education and prevention campaign, all underpinned by social research and Initiate and boost treatment and support for people living with HCV as well as establishing and strengthening HCV surveillance system in Nepal. It is also important collect national data or conduct a nation wide study and bring all the relevant stakeholders together to halt the course of the disease, which seems to be placing increasingly social and economic demands on Nepal's health system. From the study, it is very clear that Hepatitis C remains public

health concern among injecting drug users and people under OST and is complicated with co-infections that need to be addressed for effective treatment.

This study also ascertains the need to have adequate flow of information regarding Hepatitis C to the society. DUs and ex-users organizations and associations should play an important role as well as the media in the intervention of Hepatitis C problem. The need in future for HEPA to get success in national wide diagnoses research on Hepatitis C can not be re-emphasized in order to develop national wide programs.

END NOTES.

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