

# Treating HCV as co-infection in Pakistan: Challenges and Solution

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**NAI**  
**ZINDAGI**

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# Significance of HCV management as co-infection

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- Co-infection with HIV accelerates the progression of hepatic fibrosis and results in a more aggressive course of liver disease. Cirrhosis has been observed to occur 12 to 16 years earlier in persons co-infected with HCV and HIV compared with those who have HCV mono infection.\*
- For persons living with HIV who have HCV co-infection, liver-related morbidity and mortality is a prominent non-AIDS-related complication—up to 80 to 90% of liver-related deaths in persons living with HIV are attributable to HCV infection \*\*.
- HIV can accelerate HCV disease course, leading to more rapid progression to cirrhosis, liver failure, hepatocellular carcinoma (HCC), and increased HCV-related mortality. \*\*\*

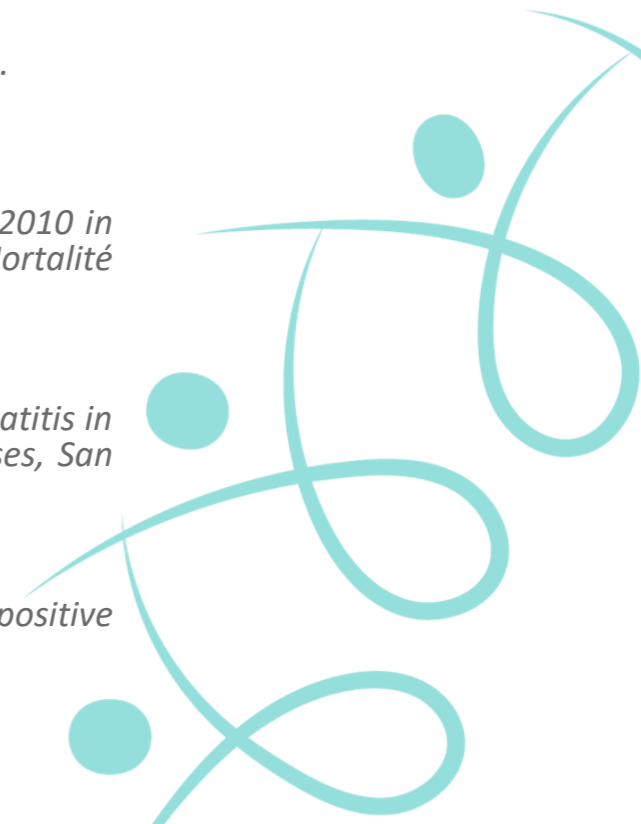
\*Graham CS, Baden LR, Yu E, Mrus JM, Carnie J, Heeren T, Koziel MJ. Influence of human immunodeficiency virus infection on the course of hepatitis C virus infection: a meta-analysis. *Clin Infect Dis.* 2001;33:562-9.

\*\*Joshi D, O'Grady J, Dieterich D, Gazzard B, Agarwal K. Increasing burden of liver disease in patients with HIV infection. *Lancet.* 2011;377:1198-209. [[PubMed Abstract](#)]

\*\*Rosenthal E, Roussillon C, Salmon-Céron D, et al. Liver-related deaths in HIV-infected patients between 1995 and 2010 in France: the Mortavic 2010 study in collaboration with the Agence Nationale de Recherche sur le SIDA (ANRS) EN 20 Mortalité 2010 survey. *HIV Med.* 2015;16:230-9.[[PubMed Abstract](#)]

\*\*\*Holmberg SD, Ly KN, Xing J, Klevens M, Jiles R, Ward JW. The growing burden of mortality associated with viral hepatitis in the United States, 1999–2007. 2011 62th Annual Meeting of the American Association for the Study of Liver Diseases, San Francisco, California. [[Google Scholar](#)]

\*\*\*de Ledinghen V, Barreiro P, Foucher J, et al. Liver fibrosis on account of chronic hepatitis C is more severe in HIV-positive than HIV-negative patients despite antiretroviral therapy. *J Viral Hepat.* 2008;15:427–33. [[PubMed](#)] [[Google Scholar](#)]



# Disease Burden in People who inject drugs (PWID)

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- A systematic review & meta analysis study of 408 selected articles from 2008-2018 show that the global prevalence of HIV/HCV, HIV/HBV, HCV/HBV and HIV/HCV/HBV co-infections among PWID was 13%, 2%, 3% and 2%, respectively.\*
- Studies with different methodologies in various regions establish the range of 58%-92% of HCV infection among PWID.
- Routine screening of PWID in Pakistan (From February 2024) by Nai Zindagi's harm reduction Program in 45 districts suggest that 68% of the tested PWID were HCV positive. (n=4401).
- For co-infections of HCV & HBV in HIV+ve PWID , Nai Zindagi has result records for almost 10,000 PWID who attended residential care Program of ART Adherence unit. The data of AAU reflects there is 93% co-prevalence of HCV and 4% co-prevalence of HBV in HIV positive PWID.

\*<https://www.mdpi.com/2076-0817/9/6/432>



# Challenges

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- Routine screening among PWID was not available before 2024 in Pakistan as only HIV+ve PWID were tested by ART clinics. Now the screening has been integrated into routine HIV prevention and harm reduction program by Nai Zindagi.
- There was an urgent need to respond to the treatment linkages of HIV/HCV co-infected PWID. An attempt was made to integrate the treatment into GF supported interventions however, it was not agreed by stakeholders and was suggested to work the linkages through provincial governments vertical programs.
- Upon efforts to link up with HCV treatment among HIV+ve PWID, different challenges were faced at public health facilities including :
  - Requirement of CNIC for treatment enrollment
  - Unavailability of diagnostic PCR tests thereby causing inability to determine treatment eligibility
  - Shortage of medicines supplies
  - Transportation issues
  - Lack of one-window operation or one stop model approach



# Solutions- A step wise approach to HCV treatment

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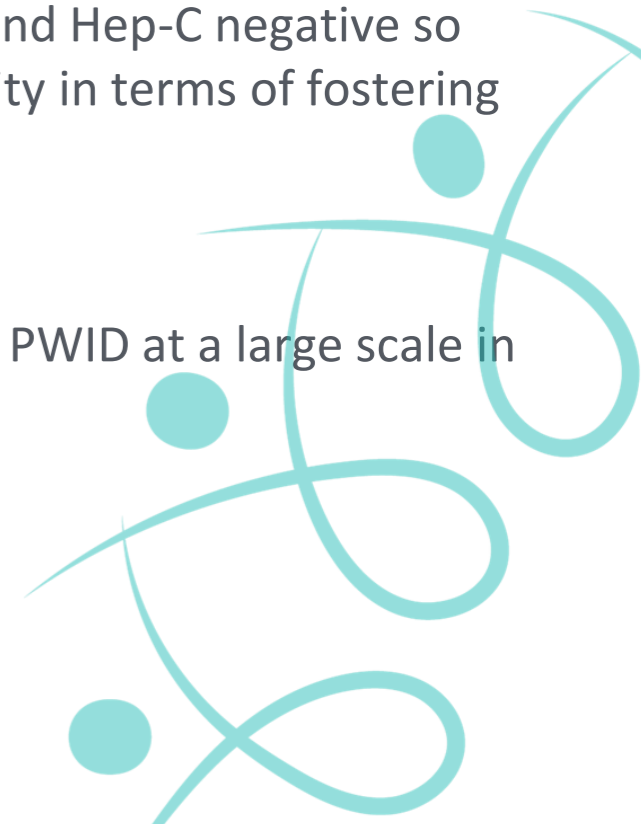
- Primary prevention of blood borne infection is an integral part of the program since its inception.
- Nai Zindagi established HCV screening services into routine testing program with PWID from February 2024 enabling early identification and management of HCV infection.
- Nai Zindagi closely worked with Agha Khan in 2022 to refer 78 eligible PWID co-infected with HIV/HCV who were adherent on ART. Agha Khan kindly facilitated these clients HCV treatment through their Zakat Program and this pilot project served as a guide to pave a two way learning process for Nai Zindagi & Agha Khan.
- Considering the success of the pilot project, Nai Zindagi proposed HCV treatment for PWID/partners to GF and secured resources for 609 individuals in 2023.



# Solutions- A step wise approach to HCV treatment

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- Nai Zindagi has proposed the treatment course of 12 weeks SOF/VEL after series of consultations with Agha Khan. SOF/VEL is a single pill combination that likely ensures compliance compared to a two separate pill combination of SOF/DAC. SOF/VEL can be used for 12 weeks in non-cirrhotic as well as compensated cirrhotic, thus making treatment decisions easier and the length of time shorter whereas SOF/DAC has to be taken up to 24 weeks for compensated cirrhotic (which may be prevalent in PWID due to drug use and increased time duration will make it more difficult to manage adherence). SOF/VEL is also approved as a pan-genotypic treatment combination by all guidelines whereas SOF/DAC is not approved as such in the EASL and AASLD guidelines.
- Nai Zindagi contracted HCV treatment services in 11 districts from July 2023 and so far 784 PWID have been referred for Hep-C treatment, comprising 753 male PWID and 31 female spouses. Almost 70% of the beneficiaries are between 20-39 years old.
- 592 (75%) out of 784 were found eligible for treatment and 573 (96%) were put on treatment.
- Out of 81 clients who were eligible for post treatment PCR, 70 (88%) have been found Hep-C negative so far suggesting success of the program and a strong case of scalability and replicability in terms of fostering collaboration.
- For 2024 , treatment resources were further secured for 1200 clients.
- •We hope that this will lead to the process of packaging Hepatitis - C treatment for PWID at a large scale in the next GF grant cycle (2024-2026)



# Recommendations

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- Screening of HCV at Primary care level
- Simplification of policies & procedures to the optimal level in order to increase access to treatment and desired retention.
- Adoption of mobile roll out strategies to determine PCR diagnostic for treatment eligibility.
- Proper Monitoring and record keeping systems to track the progress of outcomes.



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Thank you

