

## Awareness Regarding Hepatocellular Carcinoma Risk in HCV Patients Post-SVR: Which Subpopulation is more at Risk?

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Dear Sir,

Over the past three decades, the prevalence of hepatitis C virus (HCV) in Pakistan has remained persistently high, with no signs of decline<sup>1</sup>. Despite collaborative efforts to combat this viral epidemic, the shadow of HCV continues to loom large over our population. In the past few years, the only available treatment was interferon-based combination therapy, which demonstrated significantly high failure rates across various genotypes of HCV and induced severe side effects<sup>2</sup>. But over time, driven by emerging needs, significant advancements were made in HCV treatment leading to the advent of Direct-Acting Antivirals (DAAs). These medications have revolutionized HCV therapy with their increased therapeutic efficacy in targeting different genotypes of HCV, leading to a sustained virologic response (SVR) in over 90 percent of patients<sup>2,3</sup>. Sustained virologic response represents a milestone for individuals battling HCV, suggesting a successful eradication of the virus from their systems.

However, despite the high efficacy of DAAs in treating HCV and attainment of SVR, the risk of certain liver pathologies, specifically, hepatocellular carcinoma still persists. Studies have shown that among those HCV patients who achieve a Sustained Virologic Response from Direct-Acting Antiviral therapy, certain subpopulations still remain at increased risk of developing, particularly individuals with underlying liver cirrhosis<sup>4</sup>. Therefore, it is recommended that at the end of HCV treatment, patients should be as

assessed for cirrhosis using FibroScan<sup>5</sup>. Approximately one-third of all patients with chronic infection have cirrhosis so it is extremely crucial to monitor them closely even after successful HCV treatment<sup>6</sup>.

The American Association for the Study of Liver Diseases (AASLD) advises regular surveillance for Hepatocellular Carcinoma using ultrasound and AFP tests every six months in high-risk populations, including HCV patients, who have achieved SVR after DAA therapy but have an established cirrhosis<sup>7</sup>. This recommendation is based on the understanding that while DAAs can effectively clear the virus, the risk of developing hepatocellular carcinoma remains significant due to pre-existing liver damage. Adhering to these guidelines is essential for the timely detection and treatment of HCC, as prompt intervention can substantially impact patient outcomes and enhance prognosis.

Unfortunately, despite the availability of clear recommendations, following these surveillance protocols remains insufficient in the healthcare system of Pakistan, where there's a high likelihood of discontinuing regular checkups upon achieving SVR after HCV treatment. This poses a significant risk of delaying the detection of emerging health concerns, including HCC. According to a study, merely 10 % of patients in Pakistan exhibiting risk factors for HCC actively participate in regular screening, with the majority receiving diagnoses only upon the onset of symptoms<sup>8</sup>. This situation emphasizes the immediate need for specific actions to ensure people follow the surveillance rules better.

A comprehensive approach is necessary to improve adherence to surveillance guidelines. This involves educating healthcare providers and patients

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about the importance of regular screening, particularly for HCV patients at risk for developing HCC. Additionally, targeted awareness campaigns can help raise awareness about the risk of HCC occurrence in HCV patients' post-SVR. Furthermore, improving screening accessibility is crucial to ensure that these individuals can easily access screening services. Moreover, addressing financial barriers, such as the high costs of screening procedures, is also essential to ensure that individuals at risk can afford these services. These proactive measures can help in the early detection and prevention of HCC among HCV patients, ultimately leading to better health outcomes for those affected. Overcoming these challenges will necessitate collaborative efforts involving government, healthcare authorities, and community organizations, each playing a vital role in addressing the barriers to effective surveillance.

In conclusion, the burden of HCV-related complications, particularly hepatocellular carcinoma, remains a significant challenge in our healthcare landscape. However, by implementing the outlined interventions, including enhanced surveillance practices, we can take meaningful steps toward reducing the impact of HCV-related liver diseases.

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