Article type: Editorial

Home Page URL: https://www.alliedacademies.org/virology-research/

The role of patient adherence in achieving SVR.

Martin Brown*

Department of Medicine, University of Alabama at Birmingham, USA

*Correspondence to: Martin Brown, Department of Medicine, University of Alabama at Birmingham, USA, E-mail: martinbr@gmail.com

Received: 04-Jul-2024, Manuscript No. AAVRJ-25-169230; Editor assigned: 05-Jul-2024, PreQC No. AAVRJ-23-169230(PQ); Reviewed: 19-Jul-2024, QC No. AAVRJ -23-11210; Revised: 23-Jul-2024, Manuscript No. AAVRJ -23-169230(R); Published: 30-Jul-2024, DOI:10.35841/aavrj-8.2.176

Introduction

Sustained Virologic Response (SVR) is the benchmark for successful treatment of chronic Hepatitis C Virus (HCV) infection. Defined as the absence of detectable HCV RNA in the blood 12 weeks after completing antiviral therapy, SVR is considered a virologic cure. With the advent of direct-acting antivirals (DAAs), SVR rates have exceeded 95% in clinical trials. However, real-world outcomes often fall short due to one critical factor: patient adherence. This article explores how adherence influences SVR, the barriers patients face, and strategies clinicians can employ to improve outcomes [1, 2].

Adherence refers to the extent to which a patient follows prescribed treatment regimens. In HCV therapy, even short lapses—such as missing doses or early discontinuation—can significantly reduce the likelihood of achieving SVR. A pooled analysis of six phase 3 trials (ASTRAL-1 to -5 and POLARIS-4) found SVR rates of 97.6% in patients with ≥80% adherence, compared to 78.1% in those with <80% adherence. The HERO study showed that even among people who inject drugs (PWID), those with ≥50% adherence achieved SVR rates above 90% [3, 4].

Several patient-level factors can compromise adherence: Active drug use may lead to missed doses and increased risk of reinfection. Depression and anxiety can interfere with treatment engagement. Misunderstanding of treatment protocols can result in poor compliance. Housing instability, lack of transportation, and financial stress can disrupt treatment continuity. In underserved regions, patients may lack access to hepatologists or infectious disease specialists [5, 6].

Poor coordination between primary care, specialty clinics, and pharmacies can lead to treatment delays. Patients may not return for post-treatment testing, leaving SVR status unknown. Clear communication about the importance of completing therapy and potential consequences of missed doses is essential. Visual aids and culturally sensitive materials can enhance understanding [7, 8].

Pan-genotypic DAAs with once-daily dosing and minimal side effects reduce complexity and improve adherence. Combining HCV treatment with addiction services, mental health support, and primary care improves continuity. Mobile apps, text alerts, and electronic blister packs help patients stay on track. Pharmacists can monitor adherence, counsel patients, and manage side effects. The PREVAIL and SIMPLIFY trials demonstrated that even among high-risk populations, adherence patterns—such as total adherent days and consecutive missed doses—strongly correlate with SVR outcomes [9, 10].

Conclusion

Achieving SVR is not just about prescribing the right medication—it's about ensuring patients can and do take it correctly. Adherence is a dynamic interplay of personal, social, and systemic factors. Clinicians must recognize these barriers and proactively address them through education, support, and integrated care. With thoughtful interventions, SVR can become a reality for even the most vulnerable populations.

References

1. Villet S, Ollivet A, Pichoud C, et al. Stepwise process for the development of entecavir resistance in a chronic hepatitis B virus infected patient. J Hepatol. 2007;46(3):531–8.

Citation: Brown M. The role of patient adherence in achieving SVR. Virol Res J. 2024;8(2):176

2. Trojan J. Treatment of patients with lamivudine-resistant and adefovir dipivoxil-resistant chronic hepatitis B virus infection: is tenofovir the answer. Gut. 2007;56(3):436–7.
3. Yim HJ. Evolution of multi-drug resistant hepatitis B virus during sequential therapy. Hepatology. 2006;44(3):703–12.
4. Van Bommel F, Wunsche T. Comparison of adefovir and tenofovir in the treatment of lamivudine-resistant hepatitis B virus infection. Hepatology. 2004;40(6):1421–5.
5. Tenney DJ, Rose RE. Two-year assessment of entecavir resistance in Lamivudine-refractory hepatitis B virus patients reveals different clinical outcomes depending on the resistance substitutions present. Antimicrob Agents Chemother. 2007;51(3):902–11.

Citation: Brown M. The role of patient adherence in achieving SVR. Virol Res J. 2024;8(2):176