

Moving beyond the guidelines to improve detection of viral hepatitis and linkage to care

Hepatitis B virus (HBV) infection complicates the care of people with HIV (PWH) [1], particularly in endemic regions like sub-Saharan Africa, where nearly two million individuals live with HIV/HBV coinfection [2]. Hepatitis B surface antigen (HBsAg) can go undetected in PWH [3] in limited-resource settings, leaving patients vulnerable to liver disease, including cirrhosis, hepatocellular carcinoma, and liver failure. In the United States, the Centers for Disease Control and Prevention (CDC) has updated HBV screening guidelines in early 2023, recommending universal screening rather than risk-based testing [4]. However, making a dent in the public health burden of HBV infection for PWH and the population at large may require creative solutions that go beyond the guidelines.

A universal one-time HBV screening program for adults implemented in the Mount Sinai Health System in New York showed that the rates of HBV detection and linkage to care increase significantly when primary care providers can rely on automatic prompts in electronic medical records (EMRs), and receive education and support from patient navigators. Results from the ongoing program, presented at the 2023 Liver Meeting of the American Association for the Study of Liver Diseases, in Boston, Massachusetts, revealed that HBV screening rates increased five times between September 2022 and September 2023 in pilot clinics. Providers at those clinics were prompted by EMR alerts to screen all patients whose records did not include results for all three serologic tests recommended for universal HBV screening [4]: HBsAg, antibody to hepatitis B surface antigen (anti-HBs), and antibody to hepatitis B core antigen (anti-HBc). The prompts enabled providers to order any of the three tests in the panel with one click.

Soon after the alerts were incorporated into the EMRs, the providers at three of the five pilot clinics received training on using the program. The educational sessions were followed by the deployment of emails and one-page tip sheets across the health system. Anna Mageras, MPH, the manager of the Liver Education & Action Program at the Icahn School of Medicine at Mount Sinai, noted that the EMR alert had the greatest impact on screening rates, which increased from approximately 3% at baseline to approximately 15% after intervention in the two clinics that did not initially benefit from provider education.

'Clinics that received provider education early on showed screening rates of 23% by March 2023, indicating that provider outreach may give screening efforts an additional boost', Mageras said. 'We plan to continue this analysis over time to further establish the degree to which face-toface provider engagement boosts screening'.

In health systems like Mount Sinai, hepatitis B care is generally integrated into HIV care services. Even so, universal HBV screening may play a critical role in the care of PWH with comorbidities that may require immunosuppressive therapy, which carries a risk for HBV reactivation. 'Without a positive HBsAg result, a positive anti-HBc result indicates prior infection at risk of reactivation', Mageras explained. 'We asked primary care providers to counsel their patients who are anti-HBcpositive only to seek liver care before they start any immunosuppressive therapy, to avoid reactivation'. The initial data were not stratified by HIV status, but the authors hope that systematic data collection may paint a more detailed picture of the seropositive population in the ongoing study.

Although EMR alerts and provider outreach are effective tools for improving HBV detection rates, patient navigators seem to be the essential link connecting patients to care. 'We found that 39% of patients were not receiving guideline-concordant [liver] care at baseline', Mageras said. 'Our navigators have been able to link nearly 70% of those patients to care since intervention start'. Patient navigators used various strategies to help HBV-positive individuals overcome initial barriers to specialized care, such as underinsurance and lack of transportation. These included referrals to Mount Sinai's Resource Entitlement Office for insurance applications, help using transportation benefits such as Medicaid transportation and Access-a-Ride, and the availability of Metrocards at the time of appointments with liver specialists. Navigators also assisted underinsured patients in applying for financial aid for HBV treatment.

Six additional primary care clinics in Queens, Nassau, and Westchester counties are expected to join the program in the coming months. In the meantime, program coordinators are working with residents at the pilot clinics to provide peer education to their fellow residents. "We hope to have updated data soon to track whether the [additional] education sessions further boosted screening rates," Mageras added.

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Conflicts of interest

There are no conflicts of interest.

References

- Sladic JM, Taylor BS, Thamer M, Vigil KJ, Kshirsagar O, Taranova A, et al. Who is at risk for new hepatitis B infections among people with HIV? Open Forum Infect Dis 2023; 10:ofad375.
 Platt L, French CE, McGowan CR, Sabin K, Gower E, Trickey A,
- 2. Platt L, French CE, McGowan CR, Sabin K, Gower E, Trickey A, *et al.* **Prevalence and burden of HBV co-infection among people living with HIV: a global systematic review and meta-analysis.** *J Viral Hepat* 2020; **27**:294–315.
- 3. World Health Organization. Prevention and control of viral hepatitis infection: framework for global action. 2012. Available at: https://iris.who.int/handle/10665/130012. [Accessed 14 November 2023]

 Conners EE, Panagiotakopoulos L, Hofmeister MG, Spradling PR, Hagan LM, Harris AM, et al., Contributors. Screening and testing for hepatitis B virus infection: CDC recommendations — United States, 2023. MMWR Recomm Rep 2023; 72:1–25.

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