

Kaiser Permanente  
**Research**

# Closing the gap in hep B screening

Results alert clinicians to screen and vaccinate patients with STIs



# Impact»»

Based on the care gap identified in this study, we have added a best-practice alert in our electronic health record system to prompt providers to consider ordering tests for HIV and major STIs, including hepatitis, and to offer appropriate vaccinations. We are conducting a follow-up study to evaluate the impact of the alert on HBV screening and vaccination rates, as well as the HIV testing rate.

“This study shows the value of the link between research and clinical operations,” said study co-author William Towner, MD, regional physician director for Clinical Trials Research. “It also points out clear opportunities for quality improvement. As hepatitis B can lead to liver cancer, I think it’s important to view the hepatitis B vaccine as a cancer prevention vaccine and we should take every opportunity to offer it.”

**A**ccording to the Centers for Disease Control and Prevention, 39% of adults diagnosed with acute hepatitis B had sought care or were treated for a sexually transmitted infection before they were infected with hepatitis B. Many of these hepatitis B infections could have been prevented through vaccination at the time of diagnosis and treatment for an STI.

Hepatitis B can cause very serious consequences including cirrhosis, liver cancer, and liver failure. It is the underlying cause of an estimated of 2,000 to 4,000 deaths each year in the U.S. The most common source of acute, newly acquired hepatitis B infections among adults is sexual contact.

In 2008, the CDC published new recommendations for routine screening for hepatitis B infection among all adults seeking treatment for STIs and for providing hepatitis B vaccination to those who are susceptible to hepatitis B infection.

## Assessing our own practices

“We wanted to know if Kaiser Permanente Southern California clinicians were following the CDC recommendation to extend routine hepatitis B screening for people with high-risk sexual behaviors, and to vaccinate them if they are susceptible to the infection,” said Rulin C. Hechter, MD, PhD, KPSC research investigator. Dr. Hechter was the lead author of the resulting study, which was published in *Clinical Infectious Diseases* in February 2014.

The retrospective cohort study included 15,357 adult KPSC members who were diagnosed with chlamydia, gonorrhea, or syphilis between January 2008 and December 2011.

The study found that only 28.1% of the patients were screened for active hepatitis B infection within 90 days following an STI diagnosis. Among those considered susceptible to hepatitis B infection, only about 11% initiated the hepatitis B vaccine series.

Hepatitis B screening and vaccination rates were significantly lower among black adults than white adults. This has important public health implications on the targeted intervention effort, because national surveillance data suggest that black adults remain at increased risk of hepatitis B infection, even though the vaccine has been available for many years.

“Our results suggest that a large proportion of primary care providers are not fully aware that people with STIs are also at increased risk of acquiring hepatitis B infection,” said Dr. Hechter. “A low rate of screening for active hepatitis B infection in adults with STI diagnoses results in missed opportunities to identify patients who can benefit from hepatitis B vaccination and early hepatitis B treatment.”

## Best-practice alert added to EHR

To help increase awareness and encourage testing, we have implemented a best-practice alert in our electronic health record, Kaiser Permanente HealthConnect®. It prompts providers to consider ordering tests for hepatitis B if they are ordering an STI test for a patient, and provides a link to the hepatitis B vaccination order. We are also using other strategies such as physician education and training to raise awareness of the need to test and vaccinate adults at risk for hepatitis B.