New acute hepatitis C screening strategy for HIV-infected patients

Providence, R.I., USA (October 18, 2011) – Researchers at The Miriam Hospital demonstrated a practical strategy for regularly screening HIV-infected patients for acute hepatitis C virus infection (HCV), a “silent epidemic” that is rising undetected in this population and can lead to serious health complications.

“Acute HCV outbreaks have led to calls for ongoing screenings for HIV-infected individuals, but it has been unclear how best to implement this,” says lead author Lynn E. Taylor, M.D., an HIV/AIDS physician at The Miriam Hospital. “Detecting HCV in the acute stage is important because antiviral therapy is much more effective in the acute phase than treatment in the chronic phase of HCV infection, especially for people living with HIV.”

Acute HCV is an emerging sexually transmitted infection among HIV-infected men who have sex with men. Left untreated, acute HCV – defined as the first six months after exposure to the virus – can progress to chronic HCV, a leading cause of non-AIDS related illness and death among individuals infected with HIV. Due to overlapping routes of transmission, including injection drug use and certain sexual behaviors, HIV and HCV coinfection is common. However, most individuals with acute HCV are asymptomatic, or have mild, nonspecific symptoms, and early diagnosis is rare because most at-risk individuals are not tested for the virus.
Taylor and colleagues piloted an acute HCV screening strategy for at-risk HIV-infected individuals that coincided with their routine HIV clinical care schedule. At these quarterly appointments, patients completed a risk questionnaire and received a low-cost blood test to measure alanine aminotransferase (ALT), a liver enzyme that when newly elevated may indicate recent HCV infection. ALT elevations triggered a more expensive HCV RNA rest to definitively diagnose a new HCV infection.

Although the visits took place in a busy HIV clinic, 88 percent of participants had at least one ALT test. There were seven instances in which a rise in ALT prompted HCV RNA testing. One participant was diagnosed with acute HCV during the course of the study, which researchers say was anticipated given the sample size and duration of study; this corresponded to a considerable annual incidence of 2.0 percent per year.

The findings are reported in the October 2011 issue of AIDS Patient Care and STDs.

“We demonstrate that even in a busy HIV clinic setting, it is possible to screen for and diagnose hepatitis C in its earliest stages, giving patients the best chance for HCV treatment success while providing an opportunity to educate patients about how to prevent transmitting the infection to others,” Taylor says.
The Miriam study included 58 HIV-infected individuals. In addition to ALT blood tests, participants also completed risk screening questionnaires at each study visit, which included questions about sexual and drug-related risk behaviors and perceptions about their risk for acquiring HCV.

The study revealed that many at-risk HIV-infected individuals do not know they are at risk for HCV. More than half of the male participants who have sex with men reported that they do not believe that risk behaviors such as unprotected anal intercourse or certain drug practices put them at risk for HCV infection.

However, Taylor says that self-reported HCV risk and participation in several risk behaviors declined during the study. This could be explained by risk reduction counseling, which was provided at each clinic visit underreporting due to the stigma of some of these behaviors, or diminished memory of behaviors during substance use. However, reducing risk through proactive educational and counseling interventions merits further consideration.

According to Taylor, routine acute HCV screening efforts have important public health implications. "Hepatitis C is a common, potentially life-threatening –
and costly – infection, both here in Rhode Island and across the United States,” Taylor says. “Physicians should establish strategies and approaches for systematically identifying hepatitis C early in the course of infection among HIV-infected individuals who are particularly vulnerable to an accelerated HCV disease course. Our findings make it clear that it is possible to do so.”

An estimated five million people in the U.S. have chronic HCV, a liver disease that may result in long-term health problems, including liver scarring, liver failure and liver cancer. According to the Centers for Disease Control and Prevention, approximately 12,000 people die every year from HCV-related liver disease. In HIV-infected patients, the liver damage may happen more quickly. HCV infection itself is an indication to introduce antiviral medications for HIV early in the course of HIV disease in order to slow HCV disease progression.

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The principal affiliation of Lynn E. Taylor, M.D., is The Miriam Hospital (a member hospital of the Lifespan health system in Rhode Island), and direct financial and infrastructure support for this project was received through the Lifespan Office of Research Administration. The researcher also has an academic appointment at The Warren Alpert Medical School of Brown University.

The Miriam Hospital (www.miriamhospital.org) is a 247-bed, not-for-profit teaching hospital affiliated with The Warren Alpert Medical School of Brown University. It offers expertise in cardiology, oncology, orthopedics, men's health, and minimally invasive surgery and is home to the state's first Joint Commission-certified Stroke Center and robotic surgery program. The hospital is nationally known for its HIV/AIDS and behavioral and preventive medicine research, including weight control, physical activity and smoking cessation. The Miriam Hospital has been awarded Magnet Recognition for Excellence in Nursing Services four times and is a founding member of the Lifespan health system.

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