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Individuals infected by the hepatitis C virus (HCV) have nothing to fear from sex in a monogamous, heterosexual relationship. Transmission of HCV from an infected partner during sex is rare according to new research published in the March issue of *Hepatology*, a journal published by Wiley on behalf of the American Association for the Study of Liver Diseases (AASLD).

Experts estimate that HCV affects up to 4 million Americans, most of whom are sexually active. Medical evidence shows HCV is primarily transmitted by exposure to infectious blood, typically through intravenous (IV) drug use. However, there are conflicting reports regarding sexual activity and HCV transmission with some studies suggesting that exposure to infected blood during sex—through bodily fluids such as vaginal secretions, semen or saliva—may carry a minimal infection risk.

"Generally the risk for transmitting HCV to sex partners is very low," explains lead study author Dr. Norah Terrault with the University of California, San Francisco. "Yet, lack of quantitative data about the risk of HCV transmission with sexual activity

remains a limitation for doctors counseling their patients on safe sex practices."

To specifically quantify the risk HCV transmission from a chronically infected individual to their sex partner, researchers recruited 500 anti-HCV-positive individuals, who were negative for the human immunodeficiency (HIV), and their long-term heterosexual partners. Couples were surveyed about lifetime risk factors for HCV infection, sexual practices of the couple, and sharing of personal items. The team analyzed blood samples to determine the presence or absence of active virus in the blood and compared the HCV strains in those couples with HCV present.

The majority of HCV infected individuals who participated in the study were non-Hispanic whites, had a median age of 49 years, and sexual activity with their partners ranging from 2 to 52 years. HCV prevalence among partners was 4%, with 9

couples having similar viral strains and viral samples from 3 couples were highly related which is consistent with HCV transmission between the partners.

The maximum incidence rate of HCV transmission by sex was 0.07% per year or roughly 1 per 190,000 sexual contacts that researchers based upon 8377 person-years of follow-up. The team did not identify any specific sexual practices linked to HCV infections among the couples. “Our study provides clinicians with important information for counseling chronic HCV patients in long-term sexual relationships, supporting the current recommendations that couples not change their sexual practices if they are in a monogamous heterosexual relationship,” concludes Dr. Terrault.

Full citation: “Sexual Transmission of HCV Among Monogamous Heterosexual Couples: The HCV Partners Study.” Norah A. Terrault, Jennifer L. Dodge, Edward L. Murphy, John E. Tavis, Alexi Kiss, T.R. Levin, Robert Gish, Michael Busch, Arthur L. Reingold, Miriam J. Alter. *Hepatology*; (DOI: 10.1002/hep.26164); Print Issue Date: March, 2013.
URL: http://doi.wiley.com/10.1002/hep.26164

Newly Incarcerated Have 1% Acute Hepatitis C Prevalence

Screening of New Inmates with IV Drug History Could Identify Thousands of New HCV Cases Annually

A study published in the March issue of *Hepatology*, a journal of the American Association for the Study of Liver Diseases, estimates that the prevalence of acute hepatitis C virus (HCV) infection is nearly one percent among newly incarcerated inmates with a history of recent drug use. Findings suggest that systematic screening of intravenous (IV) drug users who are new to the prison system could identify more than 7,000 cases of HCV across the U.S. annually—even among asymptomatic inmates.

According to the National Institute of Allergy and Infectious Diseases Health—the funding organization for this current study—chronic HCV affects 180 million people worldwide, with more than 4 million cases in the U.S. Studies have shown that most IV drug users acquire HCV with in the first year of risky injection habits and in the U.S. this population accounts for 46% of symptomatic acute infections. Due to past injection drug use, incarcerated inmates have HCV infection rates

ranging from 25% to 41%—roughly 20 times higher than the general population.

“While the Centers for Disease Control and Prevention (CDC) recommend more vigilant surveillance of at risk populations, many healthcare programs in correctional facilities do not routinely screen for HCV,” comments Dr. Arthur Kim with the Division of Infectious Diseases at Massachusetts General Hospital and Harvard University

Center for AIDS Research in Boston. “Our study investigated whether the implementation of a low-cost, systematic screening process for high-risk behavior could uncover more asymptomatic acute HCV cases among newly incarcerated individuals who recently used injection drugs.”

Between October 2006 and March 2008 the team assessed the health of 6,342 inmates with 55% of those screened for HCV.

Of the 3470 inmates who were screened 24% were African-America, 50% Caucasian, and 22% Hispanic. Results show that 21% of the 171 high-risk inmates had acute HCV. Inmates who were diagnosed with HCV had a mean age of 29 years and 63% were female. This investigation found 91% of those with acute HCV were Caucasian, while no African-Americans were diagnosed with this disease.

Further analysis found that about

one out of every hundred inmates screened were diagnosed with acute HCV infection. Dr. Kim concludes, "Based on estimates that 700,000 individuals enter the prison system each year, about 7,000 new cases of acute HCV infection would be identified if screening strategies were systematically adopted. Further validation of our screening approach in healthcare settings such as detoxification programs or emergency rooms is warranted. Adoption of such screening programs in high-risk populations

would provide an opportunity for greater diagnosis and prevention of HCV.”

Full citation: "A Simple Strategy to Identify Acute HCV Infection Among Newly Incarcerated Injection Drug Users." Arthur Y. Kim, Ellen H. Nagami, Christopher E. Birch, Melinda J. Bowen, Georg M. Lauer and Barbara H. McGovern. *Hepatology*; (DOI: 10.1002/hep.26113); Print Issue Date: March, 2013.

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