



**BRIEF ANSWERS
TO SPECIFIC
CLINICAL
QUESTIONS**

Q: How great is the risk of transmitting the hepatitis C virus sexually?

ROCHELLE S. COLLANTES, MPH

Center For Liver Diseases, Inova Fairfax Hospital,
Falls Church, VA

ZOBAIR M. YOUNOSSI, MD, MPH

Director, Center For Liver Diseases, Inova Fairfax Hospital,
Falls Church, VA

A: Several studies have suggested higher rates of hepatitis C virus (HCV) infection among partners of HCV-infected patients than among people without infected partners. However, compared with other sexually transmitted diseases, HCV poses a very low risk of sexual transmission, which varies depending on the type of sexual relationship.

Therefore, couples can decide whether to use barrier methods. It is important that the HCV-infected person inform his or her partner when making this decision, however. Those who engage in high-risk behavior, such as having multiple sexual partners, are advised to practice safe sex.

For those who already practice safe sex because their sexual partner has HCV infection or other sexually transmitted diseases, screening for HCV may be reasonable but is not universally recommended.

■ RISK FACTORS FOR HEPATITIS C VIRUS INFECTION

Cohort and case-control studies of acute HCV infection from 1995 to 2000 linked newly acquired cases to risk factors associated with exposure to infected blood or blood-derived body fluids.¹ These risk factors include:

- Injection drug use (estimated to account for 68% of cases)
- Occupational exposure to blood, ie, in health care workers (4%)
- Nosocomial, iatrogenic, and perinatal

exposures (1%)

- Source not identified (9%)
- No other risk factor except for exposure to an infected sex partner or to multiple sex partners (18%).

Therefore, although the risk of acquiring HCV by sexual contact remains less defined than the risk by exposure to infected blood, there is some evidence that HCV can be transmitted via this route. However, compared with other sexually transmitted viruses such as human immunodeficiency virus (HIV) and hepatitis B, HCV seems to be transmitted less efficiently through sex.²

Higher HCV prevalence rates have been consistently observed in persons with multiple sexual partners, but among monogamous partners the risk of sexual transmission of HCV is low. In five studies in the United States,³ the average prevalence of HCV infection among people who had no other risk factors except for being long-term spouses of patients with chronic HCV infection was 1.5%. The estimated annual risk of sexual transmission of HCV from people with chronic infection varies from 0 to 0.6% in monogamous relationships to 1% in relationships with multiple partners.²

HCV seems to be transmitted more efficiently from men to women than from women to men. A study at a clinic for sexually transmitted diseases found that women with HCV-infected male partners had a seroprevalence rate of 10%, compared with 3% in women with noninfected male partners. In contrast, the rate among men with HCV-infected female partners was 7%, compared with 8% among men with noninfected female partners.³

Other factors that seem to increase the risk of sexual transmission of HCV include HIV co-infection, other sexually transmitted diseases (eg, gonorrhea, herpes, *Trichomonas*

HCV is sexually transmitted, but the risk is low



infection), and sexual practices that result in mucosal trauma.²

RECOMMENDATIONS

Who should be tested for HCV?

The Centers for Disease Control and Prevention³ recommend HCV testing for those at high or intermediate risk of infection.

High-risk groups include:

- Injection drug users
- Recipients of clotting factors made before 1987.

Intermediate-risk groups include:

- Hemodialysis patients
- People with undiagnosed liver problems
- Recipients of blood or solid organs before 1992
- Infants born to infected mothers (testing is advised at birth and at 12 to 18 months of age).

Who doesn't need testing?

Because health care and public safety workers are considered to be at low risk, testing is recommended only after a possible exposure to HCV.

Whether to screen sexual partners of infected patients remains controversial. Although people having sex with an infected steady partner may be at low risk for acquiring HCV infection, some clinicians still recommend testing them.

Advice to patients

HCV-infected persons should notify their partners of their HCV status and inform

them that the risk of sexual transmission is low.

Those who are infected and continue to have multiple partners or short-term sexual relationships should use barrier protection during sexual activities and decrease their number of sexual partners.

The use of condoms is not necessary for couples in long-term monogamous relationships, but they can be advised to use them if they wish to. Many authorities do not have strict advice except recommending against sharing of sharp appliances (eg, razor, dental items) that may result in exposure to blood.⁴

TOPICS FOR FUTURE RESEARCH

Terrault² suggested several questions about sexual transmission of HCV that require more research:

- Do HCV RNA levels predict the risk of transmission?
- Do specific sexually transmitted diseases increase the risk of HCV transmission?
- Do specific sexual practices promote HCV transmission?
- Does sexual transmission occur only during the acute infection or also during chronic HCV infection?
- What role does gender play in the acquisition of HCV infection?

Answers to these questions will change future recommendations for prevention of sexual transmission of HCV from HCV-infected people to their sexual partners. ■

Individuals with any potential risk for HCV should be screened

REFERENCES

1. **Alter MJ.** Prevention of spread of hepatitis C. *Hepatology* 2002; 36(suppl 1):S93-S98.
2. **Terrault NA.** Sexual activity as a risk factor for hepatitis C. *Hepatology* 2002; 36(suppl 1):S99-S105.
3. **Centers for Disease Control and Prevention.** Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic dis-

ease. *MMWR* 1998; 47(RR19):1-39.

4. **National Institutes of Health.** Consensus development conference statement: management of hepatitis C: 2002—June 10 to 12, 2002. *Hepatology* 2002; 36(suppl 1):S3-S20.

.....
ADDRESS: Zobair M. Younossi, MD, MPH, Center for Liver Diseases, 3300 Gallows Road, Falls Church, VA 22042-3300.