Prevalence and Management of Chronic Hepatitis C Virus Infection in Women

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KEYWORDS

• Viral hepatitis • Women • Pregnancy • Antiviral therapy

KEY POINTS

- Women should be tested for hepatitis C virus if they have risk factors for exposure, including birth year between 1945 and 1965.
- Routine hepatitis C virus testing is not recommended in pregnancy, except for women with risk factors for exposure.
- Hepatitis C virus infection does not clearly confer adverse risk during pregnancy, except in patients with cirrhosis.
- Premenopausal women must be carefully counseled about the risks of pregnancy and breast feeding during hepatitis C virus treatment.
- Highly effective hepatitis C virus antiviral therapies are rapidly emerging. All women with hepatitis C virus should be assessed for treatment candidacy.

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EPIDEMIOLOGY AND MANAGEMENT OF HEPATITIS C VIRUS IN WOMEN

Hepatitis C virus (HCV) is the most common blood-borne pathogen in the United States, chronically infecting an estimated 1% of the population, including roughly 970,000 women.[1] HCV is the nation's leading cause of cirrhosis, liver failure, hepatocellular carcinoma, and liver transplantation. HCV typically remains asymptomatic for 2 to 4 decades until cirrhosis, hepatocellular carcinoma, or liver failure occurs. Therefore, despite a decline in the number of new HCV infections in the United States since 1990, the burden of HCV-related complications is projected to continue increasing over the next 20 years.[2]

Women account for approximately 35.8% of cases of chronic HCV.[1] The course of HCV and its complications varies between women and men. In addition, women with HCV face unique risks related to antiviral treatment during pregnancy and breast feeding and the potential for vertical transmission to their offspring. The following review describes the epidemiology, disease progression, and treatment of HCV in women.

TRANSMISSION OF HEPATITIS C VIRUS IN WOMEN

HCV is spread by blood contact. The main modes of transmission include intravenous or intranasal drug use, blood product transfusion before 1990, and percutaneous exposures such as needle stick injuries. **Table 1** describes the US prevalence of HCV infection in selected risk groups for men and women.

Unlike hepatitis B virus or human immunodeficiency virus (HIV), sexual transmission of HCV between serodiscordant heterosexual partners is rare, with an incidence of 0.07% per year (or 1 in every 190,000 sexual contacts).[3] Therefore, from an HCV perspective, most women in long-term monogamous heterosexual relationships can safely maintain their current practices. Women who are concerned about HCV transmission or who have other risk factors that increase their chances of acquiring HCV (eg, HIV, multiple partners, injection drug use) should be counseled about safe sex practices with barrier methods. The rate of HCV transmission between female sexual partners is unknown, but is likely to be exceptionally low.

Table 1
US prevalence of HCV infection in selected groups

	HCV Infection Prevalence	
Population[a]	**(%)**	**Range (%)**
1945–1965 birth cohort	3.25	2.80–3.76[b]
History of injection drug use	79	72–86
Unexplained abnormal aminotransferase levels	15	10–18
Hemophilia with receipt of clotting factors before 1987	87	74–90
Organ transplant or blood product transfusion before 1990	6	5–9
Children born to HCV-infected mothers	5	0–25
Chronic hemodialysis	10	0–64
Men who have sex with men	4	2–18
HIV	25	15–30

[a] Includes both men and women.
[b] Presented as a 95% confidence interval.
Data from Refs.[7,28,29]