Surgeon General's Perspectives

TESTING BABY BOOMERS FOR HEPATITIS C VIRUS INFECTION

Boris D. Lushniak, MD, MPH
RADM, U.S. Public Health Service
Acting Surgeon General

Hepatitis C virus (HCV) is a deadly virus that often goes undetected. In the United States, an estimated 2.7–3.9 million people are infected, three-quarters of whom are baby boomers who were born from 1945 to 1965.[1] As a fellow baby boomer, I am very concerned that one in 40 baby boomers—about 2.1 million people—are infected with HCV. African American people are also disproportionately affected by HCV. Unfortunately, only testing those with certain risk factors and medical indications has had limited success in identifying all infections during the past 15 years.[2–4]

In the absence of effective detection and treatment, it is estimated that more than one-third of infected people may die from HCV-related disease,[5] and that three-quarters of these deaths would occur among baby boomers. HCV-associated deaths are rapidly increasing, doubling from nearly 8,000 deaths in 1999 to more than 16,000 deaths in 2010,[6,7] and are expected to increase to more than 35,000 deaths per year in the next 10–20 years without intervention. HCV infection is also the most common reason for liver transplantation and a leading cause of liver cancer,[8,9] the fastest-rising cause of cancer-related death in the U.S. Treatment for HCV is curative, however, and has been shown to reduce all-cause mortality among cured individuals.[10]

In the context of this growing health crisis, the Institute of Medicine (IOM) released a report entitled "Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C"[11] in January 2010, which made many recommendations, including improving HCV testing. In response to the IOM report, Assistant Secretary for Health Dr. Howard Koh convened an interagency working group to develop a strategic plan.[12] The plan called for the development of consistent HCV testing guidelines across U.S. Department of Health and Human Services agencies to improve implementation.

In 1998, the Centers for Disease Control and Prevention (CDC) recommended routine testing for people with specific risk factors or medical indications.[13] These risk factors include any history of injection drug use (even once), biochemical evidence of possible liver damage or disease, and blood transfusion or organ transplant before 1992 (when routine screening of donor blood was initiated). Despite these recommendations, as well as a further recommendation in 1999 for HCV testing for all adults infected with human immunodeficiency virus,[14] most people living with HCV infection are not aware of it. HCV infection is primarily asymptomatic, and many who have been infected for decades have no symptoms until they develop advanced liver disease, when care and treatment options are more limited. In addition, some physicians are uncomfortable asking their patients about past risk behaviors, and some patients are reluctant to share stigmatizing information, all of which results in missed opportunities for diagnosis and treatment. Lastly, recent analyses have found that 50% of infected baby boomers do not report any HCV-related risk factors; as such, they would not be identified even if risk-based screening were to be fully implemented.[15]

Because HCV infection has serious health consequences, and levels of diagnosis and treatment are low, CDC issued a recommendation in 2012 to test all baby boomers one time, whether or not a history of risk is elicited.[16] This recommendation enables medical providers to offer HCV testing to baby boomers routinely, without the barrier of discussing stigmatized risk behaviors. Testing need only occur once except for the small proportion of uninfected people who remain

at high risk. Because alcohol speeds progression of liver disease in those with HCV infection, CDC also recommends that all HCV-infected people receive an alcohol use assessment and intervention to reduce or cease alcohol use as indicated. In 2013, the U.S. Preventive Services Task Force issued HCV testing recommendations that also include routine, one-time HCV testing for baby boomers.[17] Consistent public health recommendations for HCV testing should reduce confusion among providers and enable increased testing, diagnosis, and treatment.

During my professional career, we have advanced from the world of non-A, non-B hepatitis to a fuller understanding of HCV. Now is the time to increase routine HCV testing of baby boomers to provide prevention counseling to improve liver health and to link infected people to care and treatment. People who do not know that they are infected with HCV cannot take action. Recommended steps for HCV testing and follow-up have recently been simplified,[18] interpretation is clear, and the routine testing of baby boomers can be readily integrated into clinical care. As effective treatments that can cure 90% of treated people become available, I urge physicians to test all baby boomers for HCV infection to prevent liver disease and death.

Boris D. Lushniak, MD, MPH
RADM, U.S. Public Health Service
Acting Surgeon General

The author thanks Bryce D. Smith, PhD, Lead Health Scientist, Prevention Research and Evaluation, Division of Viral Hepatitis, Centers for Disease Control and Prevention, and Corinna Dan, RN, MPH, Viral Hepatitis Policy Advisor at the Office of HIV/AIDS and Infectious Disease Policy, for their contributions to this article.

REFERENCES

1. Armstrong GL, Wasley A, Simard EP, McQuillan GM, Kuhnert WL, Alter MJ. The prevalence of hepatitis C virus infection in the United States, 1999 through 2002. Ann Intern Med 2006;144:705-14.
2. Roblin DW, Smith BD, Weinbaum CM, Sabin ME. HCV screening practices and prevalence in an MCO, 2000–2007. Am J Manag Care 2011;17:548-55.
3. Spradling PR, Rupp L, Moorman AC, Lu M, Teshale EH, Gordon SC, et al. Hepatitis B and C virus infection among 1.2 million persons with access to care: factors associated with testing and infection prevalence. Clin Infect Dis 2012;55:1047-55.
4. Southern WN, Drainoni ML, Smith BD, Christiansen CL, McKee D, Gifford AL, et al. Hepatitis C testing practices and prevalence in a high-risk urban ambulatory care setting. J Viral Hepat 2011;18:474-81.
5. Rein DB, Wittenborn JS, Weinbaum CM, Sabin M, Smith BD, Lesesne SB. Forecasting the morbidity and mortality associated with prevalent cases of pre-cirrhotic chronic hepatitis C in the United States. Dig Liver Dis 2011;43:66-72.
6. Ly KN, Xing J, Klevens RM, Jiles RB, Ward JW, Holmberg SD. The increasing burden of mortality from viral hepatitis in the United States between 1999 and 2007. Ann Intern Med 2012;156:271-8.
7. Centers for Disease Control and Prevention (US). Surveillance for viral hepatitis—United States, 2011 [cited 2014 Feb 19]. Available from: URL: http://www.cdc.gov/hepatitis/Statistics/2011Surveillance/PDFs/2011HepSurveillanceRpt.pdf
8. Velázquez RF, Rodriguez M, Navascués CA, Linares A, Pérez R, Sotorríos NG, et al. Prospective analysis of risk factors for hepatocellular carcinoma in patients with liver cirrhosis. Hepatology 2003;37:520-7.
9. Freeman RB Jr, Steffick DE, Guidinger MK, Farmer DG, Berg CL, Merion RM. Liver and intestine transplantation in the United States, 1997–2006. Am J Transplant 2008;8(4 pt 2):958-76.
10. Backus LI, Boothroyd DB, Phillips BR, Belperio P, Halloran J, Mole LA. A sustained virologic response reduces risk of all-cause mortality in patients with hepatitis C. Clin Gastroenterol Hepatol 2011;9:509-16.
11. Institute of Medicine. Hepatitis and liver cancer: a national strategy for prevention and control of hepatitis B and C. Washington: National Academies Press; 2010.
12. Department of Health and Human Services (US). Combating the silent epidemic of viral hepatitis: action plan for the prevention, care & treatment of viral hepatitis [cited 2014 Jan 4]. Available from: URL: http://www.hhs.gov/ash/initiatives/hepatitis/action-plan_viralhepatitis2011.pdf
13. Alter MJ, Margolis HS, Bell BP, Bice SD, Buffington J, Chamberland M, et al. Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. MMWR Recomm Rep 1998;47(RR-19):1-39.
14. Kaplan JE, Masur H, Holmes KK. 1999 USPHS/IDSA guidelines for the prevention of opportunistic infections in persons infected with human immunodeficiency virus. U.S. Public Health Service (USPHS) and Infectious Diseases Society of America (IDSA). MMWR Morb Mortal Wkly Rep 1999;48(RR-10):1-59.
15. Smith BD, Beckett GA, Yartel A, Holtzman D, Patel N, Ward JW. Previous exposure to HCV among persons born during 1945–1965: prevalence and predictors, United States, 1999–2008. Am J Public Health 2014 Jan 16 [epub ahead of print].
16. Smith BD, Morgan RL, Beckett GA, Falck-Ytter Y, Holtzman D, Teo CG, et al. Recommendations for the identification of chronic hepatitis C virus infection among persons born during 1945–1965. MMWR Recomm Rep 2012;61(RR-4):1-32.
17. Moyer VA; U.S. Preventive Services Task Force. Screening for hepatitis C virus infection in adults: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med 2013;159:349-57.
18. Testing for HCV infection: an update of guidance for clinicians and laboratorians. MMWR Morb Mortal Wkly Rep 2013;62(RR-18):362-5.