

Screening for Hepatitis C Virus (HCV) Infection in Long-Term Pediatric Cancer Survivors: A Report from the Childhood Cancer Survivor Study (CCSS)

Lansdale M1, Marina N1, Castellino S2, Goodman P3, Hudson MM4, Mertens AC5, Sklar CA6, Leisenring W3, Robison LL4, Oeffinger KC6

1Stanford University Medical Center, Palo Alto, CA 2Wake Forest University Health Sciences, Winston-Salem, NC 3Fred Hutchinson Cancer Research Center, Seattle, WA 4St. Jude Children's Research Hospital, Memphis, TN 5University of Minnesota, MN 6Memorial Sloan-Kettering Cancer Center, New York, NY

Background: The Children's Oncology Group recommends HCV screening for all pediatric cancer survivors treated prior to 1993. Study aims were to determine the proportion of adult survivors of pediatric cancer who report having been tested for HCV and to identify modifying factors associated with testing.

Methods: The CCSS is a cohort study that tracks health outcomes in long-term survivors of childhood cancer who were diagnosed between 1970 and 1986. Adult participants (N=8443) were asked a series of questions about transfusion history and HCV testing.

Results: 47.5% reported a previous transfusion, 35.9% reported not having one, and 16.6% were not sure. Of those who reported a previous transfusion, 38.9% reported HCV testing (leukemia survivors, 34.5%), 31.4% reported no testing, and 29.7% were not sure. Of those tested, 15.9% of leukemia survivors and 6.7% of other cancer survivors were HCV positive. Multivariate analysis identified three factors that predicted an increased likelihood of testing: diagnosis of leukemia (odds ratio [OR], 1.5; 95% confidence intervals (CI), 1.3-1.7); care in the previous two years at a cancer center (OR, 1.5; 95% CI, 1.3-1.7); and some college education or vocational training beyond high school (OR, 1.2; 95% CI 1.1-1.4). Gender, race, ethnicity, income, and health insurance status did not predict likelihood of HCV testing.

Conclusion: Though universal screening for HCV is recommended in this population, less than one-third of participants report knowledge of previous testing. Thus, there is a potentially large population of pediatric cancer survivors with undetected chronic HCV, representing a serious public health issue.

Funding Source: Supported by NIH Grant U24-CA-55727.