

response to unexplained elevations in ALT, to facilitate early detection of transmission and implementation of control measures.² Routine HCV screening of hemodialysis patients also is recommended by the National Kidney Foundation.⁹ However, dialysis providers are not reimbursed by Medicare for anti-HCV screening, and screening is not required by the Centers for Medicare and Medicaid Services.¹⁰ In the 2008 Medicare conditions for coverage for end stage renal disease facilities,¹⁰ CDC recommendations for preventing transmission of infections in hemodialysis units² were incorporated by reference, with the exception of screening for hepatitis C. The referenced recommendations have the authority of regulation.

This investigation documented four cases of patient-to-patient transmission of HCV infection and identified five additional patients who might have acquired HCV infection while receiving treatment at the hemodialysis unit. Multiple possible mechanisms of HCV transmission were identified, including contaminated health-care worker hands and treatment surfaces. Contact transmission in the setting of extensive environmental contamination is a common mechanism for transmission of blood-borne pathogens in hemodialysis units.² Because this investigation was restricted to patients undergoing treatment as of July 31, 2008, the actual number of incident cases at the hemodialysis unit might have been larger.

This outbreak highlights the need for hemodialysis units to adhere to recommendations for infection control and comprehensive HCV surveillance, including routine anti-HCV screening, confirmatory testing of anti-HCV seroconversions, assessment of the adequacy of infection control practices in the setting of documented HCV seroconversion, and prompt reporting to the local health department as required by reportable disease laws or regulations. Had the hemodialysis unit in this report complied with these practices, HCV transmission might have been

identified earlier, and control measures (e.g., reviewing infection control practices to identify potential mechanisms of transmission, ensuring adherence to unit infection control policies, and retraining direct care staff members) could have been implemented to interrupt further HCV transmission. Because many patients with HCV infection are asymptomatic, routine screening is essential to detect transmission within hemodialysis facilities and ensure that appropriate precautions are being followed consistently.

Acknowledgments

This report is based, in part, on contributions by E Rocchio, MA, K Southwick, MD, N Sureshbabu, and T Kwechin, New York State Dept of Health; and K Bornschlegel, MPH, New York City Dept of Health and Mental Hygiene.

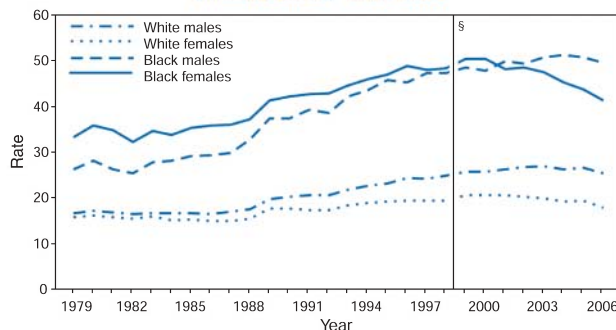
REFERENCES

1. CDC. Guidelines for laboratory testing and result reporting of antibody to hepatitis C virus. *MMWR*. 2003;52(RR-3).
2. CDC. Recommendations for preventing transmission of infections among chronic hemodialysis patients. *MMWR*. 2001;50(RR-5).
3. 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(10):705-714.
4. Finelli L, Miller JT, Tokars JI, Alter MJ, Arduino MJ. National surveillance of dialysis-associated diseases in the United States, 2002. *Semin Dial*. 2005;18(1):52-61.
5. Kamar N, Ribes D, Izopet J, Rostaing L. Treatment of hepatitis C virus infection (HCV) after renal transplantation: implications for HCV-positive dialysis patients awaiting a kidney transplant. *Transplantation*. 2006;82(7):853-856.
6. CDC. Surveillance for acute viral hepatitis—United States, 2006. *MMWR*. 2008;57(SS-2).
7. Sharara AI, Hunt CM, Hamilton JD. Hepatitis C. *Ann Intern Med*. 1996;125(8):658-668.
8. Thompson ND, Perz JF, Moorman AC, Holmberg SD. Nonhospital health care-associated hepatitis B and C virus transmission: United States, 1998-2008. *Ann Intern Med*. 2009;150(1):33-39.
9. Gordon CE, Balk EM, Becker BN, et al. KDOQI US commentary on the KDIGO clinical practice guideline for the prevention, diagnosis, evaluation, and treatment of hepatitis C in CKD. *Am J Kidney Dis*. 2008;52(5):811-825.
10. Centers for Medicare and Medicaid Services, Center for Medicaid and State Operations/Survey and Certification Group. End Stage Renal Disease (ESRD) Program: interpretive guidance version 1.1. Baltimore, MD: Centers for Medicare and Medicaid Services; 2008. Available at <http://www.cms.hhs.gov/eog/downloads/eo%200526.pdf>.

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Age-Adjusted Death Rates* for Diabetes, by Race and Sex — United States, 1979–2006†



* Per 100,000 U.S. standard population.

† Data for 2006 are preliminary.

§ In 1999, *International Classification of Diseases, 10th Revision* (ICD-10) replaced the previous revision of the ICD (ICD-9). This resulted in approximately 2% more deaths being classified as diabetes mellitus under ICD-10 (diagnosis codes E10–E14) than would be counted under ICD-9 (diagnosis code 250); therefore, death rates before 1999 are not exactly comparable with those computed after 1998.

Age-adjusted death rates for diabetes declined for whites and blacks from 2005 to 2006. This was the biggest drop in the diabetes death rate since 1999. The rate for black males, however, has generally increased and first surpassed the rate for black females in 2001.

SOURCE: Heron MP, Hoyert DL, Xu JQ, Scott C, Tejada-Vera B. Deaths: preliminary data for 2006. *Natl Vital Stat Rep* 2008;56(16). Available at http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_16.pdf and <http://www.cdc.gov/nchs/data/statab/hist001r.pdf>.

MMWR. 2008;57:855.