

## ORAL ABSTRACTS

**598. Hepatitis B Reactivation and Hemodialysis-Related Transmission**

Sarah Rhea, DVM, MPH, PhD<sup>1</sup>; Robert Pace, RN<sup>2</sup>; Victoria Mobley, MD, MPH<sup>2</sup>; Jennifer Macfarquhar, RN, MPH, CIC<sup>3</sup>; Edward Robinson Jr., MD, MPH<sup>4</sup>; Tonya Hayden, PhD<sup>5</sup>; Hong Thai, PhD<sup>5</sup>; John T. Brooks, MD<sup>5</sup>; Anne Moorman, BSN, MPH<sup>5</sup>; Priti Patel, MD, MPH<sup>5</sup>; Zack Moore, MD, MPH<sup>2</sup>; <sup>1</sup>Epidemic Intelligence Service, Centers for Disease Control and Prevention; North Carolina Department of Health and Human Services, Raleigh, NC; <sup>2</sup>North Carolina Department of Health and Human Services, Raleigh, NC; <sup>3</sup>Centers for Disease Control and Prevention; North Carolina Department of Health and Human Services, Raleigh, NC; <sup>4</sup>Guilford County Department of Public Health, Greensboro, NC; <sup>5</sup>Centers for Disease Control and Prevention, Atlanta, GA

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**Background.** Hepatitis B virus (HBV) reactivation and transmission in a U.S. hemodialysis (HD) facility has not been previously reported. Although HD patients are routinely screened for acute or chronic hepatitis B and isolated if infected, no recurrent testing is recommended for patients with resolved HBV infection. In March 2013, the

North Carolina Division of Public Health was notified of a new HBV infection in an HD patient with no other identified risk factors. We investigated to identify other exposed patients and prevent additional infections.

**Methods.** We reviewed medical records, interviewed the index patient (Patient A) regarding hepatitis B risk factors, performed HBV molecular analysis, and observed infection control practices at the HD facility.

**Results.** Patient A, a nonresponder to HBV vaccination, was consistently surface antigen (HBsAg)-negative until a positive result in March 2013. Patient A's only identified hepatitis B risk factor was HD. The HD facility had no other patients with known active HBV infection. One patient (Patient B) had evidence of resolved HBV infection. Patient B, who was HIV-positive and on antiretroviral therapy, underwent a renal transplant in November 2011. After transplant failure in May 2012, Patient B returned to HD and was documented to be HBsAg-negative and surface antibody (anti-HBs)-positive in the fall of 2012. Patient B tested newly HBsAg-positive in April 2013, indicating HBV reactivation, and began dialyzing in isolation. In July 2013, both Patients A and B had HBV viral loads  $>1.1 \times 10^8$  IU/mL; whole genome sequences indicated 99.9% genetic homology. Infection control breaches at the facility included lack of proper HD station environmental disinfection. Patient A followed Patient B at the same HD station three times weekly during May 2012–March 2013. Patient A remained HIV-negative. Additional testing revealed no new HBV infections among 108 other facility patients.

**Conclusion.** This is the first reported HD-related HBV transmission from a patient with reactivation. This case underscores challenges in identifying HD patients who reactivate; it also might have policy implications for expanded HBV testing among HD patients with resolved infection, particularly those with severe immune suppression.

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