

## Notes from the Field

### Health Care–Associated Hepatitis A Outbreak — Texas, 2015

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On August 27–28, 2015, the Texas Department of State Health Services received calls from Fort Bend County and Harris County health departments requesting postexposure prophylaxis (PEP) recommendations for contacts of two nurses (patients A and B) with confirmed hepatitis A virus (HAV) infection. Both nurses had symptom onset during August 15–19 and worked for the same pediatric home health care agency in another jurisdiction. Because of the proximity of the onset dates, a common source exposure was suspected. The state and local health departments began an investigation to identify potentially exposed patients, their families, and other agency personnel; offer PEP; and identify the source of exposure.

Interviews were conducted with the agency and patients A and B to identify their patients, the dates they visited each patient household, the services provided in the homes, and any other shared exposures. During their incubation and infectious periods (August 1–28), patients A and B cared for a total of 12 children but had only one patient in common (a hepatitis A–vaccinated pediatric transplant recipient), and no other common exposures. Because the two nurses worked shifts of 10–12 hours in patients' homes using standard precautions, sharing bathrooms, and consuming food and beverages, all residents as well as all other nurses providing care in the homes were considered exposed.

CDC recommends PEP, consisting of a single dose of monovalent hepatitis A (hepA) vaccine or immunoglobulin (IG, 0.02 mL/kg), within 2 weeks of exposure to HAV for previously unvaccinated persons (1). HepA vaccine is preferred for healthy persons aged 12 months–40 years. Two of the 12 exposed children were not fully vaccinated: one was aged <1 year and was given IG, the other had previously received 1 dose of hepA vaccine and was given the 2nd dose. Among a total of 42 potentially exposed home health care nurses, 31 (74%) were not vaccinated against HAV. Two unvaccinated nurses received hepA vaccine for PEP; the remaining unvaccinated agency nurses and household contacts were identified outside the recommended 2-week window for PEP. Patients, their household contacts, and agency nurses were monitored by the agency for symptoms consistent with HAV infection

for the duration of the potential incubation period (50 days after their last date of contact with cases). No additional cases were reported.

On September 8, 2015, the Texas Department of State Health Services sent serum specimens from patients A and B and their shared patient to CDC for HAV RNA detection and molecular sequencing. All three specimens had detectable HAV RNA with genetically identical sequences, thus confirming the child as infected with HAV (patient C). Further investigation revealed that a hospital nurse who had previously cared for patient C had also developed symptomatic HAV infection. The care for patient C provided by all three nurses included managing watery stool (e.g., changing diapers and ostomy bags). Thus, the epidemiologic and laboratory analyses provided evidence that all three nurses were infected through exposure to patient C. Further investigation to ascertain how patient C acquired HAV is under way.

Hepatitis A is a highly contagious, self-limiting infection of the liver, spread through the fecal-oral route (2,3). Vaccination with a 2-dose series of hepA vaccine is recommended for children aged 12–23 months. In the United States, coverage with 2 doses of hepA vaccine is the lowest (58%) of all recommended childhood vaccines among children aged 19–35 months (58%) (4). Vaccination for adults aged ≥19 years is recommended only for persons at high risk (2); coverage among adults aged ≥19 years in 2013 was only 9% (3,5). Health care personnel are not considered at high risk for HAV infection because nosocomial hepatitis A infrequently occurs. Transmission to health care personnel usually occurs when the source patient has unrecognized hepatitis and is fecally incontinent or has diarrhea (6,7). Underdiagnosis might be especially prevalent in pediatric patients aged ≤5 years, who typically are asymptomatic (1), or in immunocompromised patients of any age. Although standard precautions are recommended for health care personnel working with diapered or incontinent patients without an infectious etiology for their symptoms, contact precautions are recommended when HAV or another infectious etiology is suspected or confirmed (8).

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