Hepatitis B and C Transmission in Outpatient Settings (11/03)


Transmission of hepatitis B virus (HBV) and hepatitis C virus (HCV) can occur in health-care settings from percutaneous or mucosal exposures to blood or other body fluids from an infected patient or health-care worker. This report summarizes the investigation of four outbreaks of HBV and HCV infections that occurred in outpatient health-care settings. The outbreaks were reported to public health authorities by clinicians who suspected these infections might have been health-care-related. The investigation of each outbreak suggested that unsafe injection practices, primarily reuse of syringes and needles or contamination of multiple-dose medication vials, led to patient-to-patient transmission. Because the majority of patients with acute HBV or HCV infection are asymptomatic, all health-care workers should adhere to recommended standard precautions and fundamental infection-control principles, including safe injection practices and appropriate aseptic techniques to prevent the transmission of bloodborne pathogens.

DIS Comment: Although these outbreaks occurred in outpatient medical clinic settings, it is possible for this to occur in a dental setting where multiple-dose medication vials are used for conscious sedation. These outbreaks could have been prevented by adherence to basic principles of aseptic technique for the preparation and administration of parenteral medications. The authors of this report recommend frequent training programs to reinforce infection-control principles and practices, including aseptic techniques and safe injection practices (see below for recommendations). Furthermore, written policies and procedures to prevent patient-to-patient transmission of bloodborne pathogens should be established, and practices should be periodically evaluated and monitored.

Infection-control and safe injection practices to prevent patient-to-patient transmission of bloodborne pathogens:

- Use a sterile, single-use, disposable needle and syringe for each injection and discard intact in an appropriate sharps container after use.

- Use single-use medication vials, prefilled syringes, and ampules when possible. Do not administer medications from single-dose vials to multiple patients or combine leftover contents for later use.

- If multiple-dose vials are used, restrict them to a centralized medication area or for single patient use. Never re-enter a vial with a needle or syringe used on one patient if that vial will be used to withdraw medication for another patient. Discard if sterility is compromised.

- Do not use bags or bottles of intravenous solution as a common source or supply for multiple patients.

- Use aseptic technique to avoid contamination of sterile injection equipment and medications.