cases

CDC, Centers for Disease Control and Prevention; *HAV,* hepatitis A virus; *HBV,* hepatitis B virus.

Hepatitis A

Hepatitis A incidence in the United States has declined 92% since the introduction of a vaccine in 1995 with approximately 21,000 cases annually in the United States (Matheny and Kingery, 2012). The virus is spread directly or indirectly by the fecal-oral route by ingestion of contaminated foods, direct exposure to infected fecal material, or close contact with an infected person. The virus is particularly prevalent in developing countries with poor living conditions, inadequate sanitation, crowding, and poor personal hygiene practices. The spread of HAV has been associated with improper food handling and high-risk areas, such as households with infected persons, residential centers for the disabled, and daycare centers. The average incubation period is about 28 days, with a range of 15 to 50 days (Matheny and Kingery, 2012). Fecal shedding of the virus can occur for 2 weeks before and for 1 week after the onset of jaundice. During this time, although the individual is asymptomatic, the virus is most likely to be transmitted. Infants with HAV infection are likely to be asymptomatic (anicteric hepatitis). Children often have diarrhea, and their symptoms are frequently attributed to gastroenteritis. Younger children rarely develop jaundice; however, 70% of older children and adults infected with HAV develop clinical signs with icteric hepatitis (Matheny and Kingery, 2012). The prognosis of HAV infection is usually good, and complications are rare.

Hepatitis B

Although the incidence of HBV is declining after the introduction of a universal immunization program, approximately 1.25 million people in the United States are infected with HBV (Jensen and Balistreri, 2016). Hepatitis B can be an acute or chronic infection, ranging from an asymptomatic, limited infection to fatal, fulminant (rapid and severe) hepatitis (Clemente and Schwarz, 2011). There are no environmental or animal reservoirs for HBV. Humans are the main source of infections. HBV may be transmitted parenterally, percutaneously, or transmucosally. Hepatitis B surface