

Hepatitis B, Acute

Agent: Hepatitis B virus (Hepadnavirus)

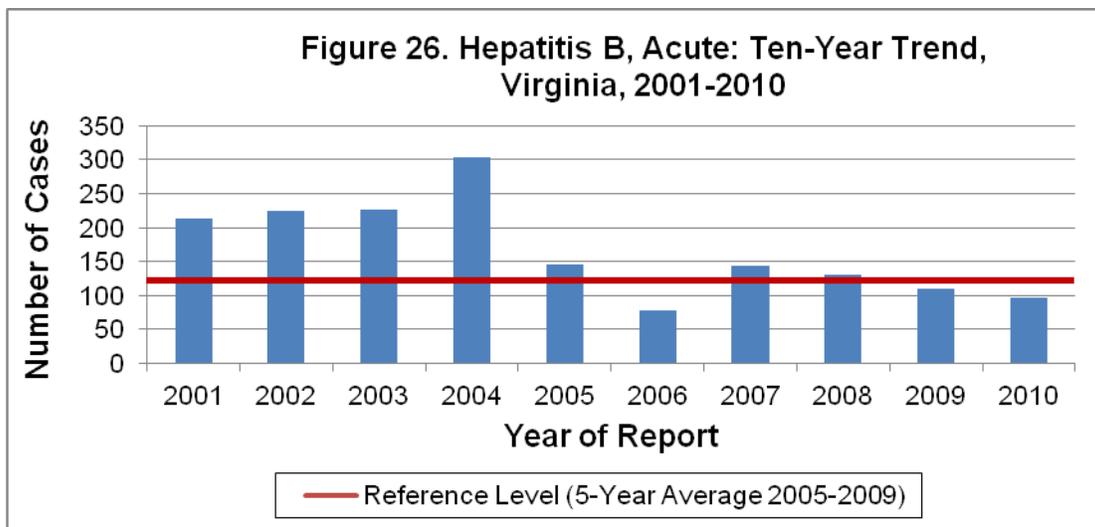
Mode of Transmission: Person-to-person transmission by blood or body fluid exposure (e.g., sexual, perinatal, or through the skin, such as during injection drug use).

Signs/Symptoms: Fever, fatigue, loss of appetite, nausea, abdominal pain, and jaundice. Infection can be asymptomatic. The likelihood of developing symptoms is age-dependent with adults and children over the age of five years being more likely to develop symptoms.

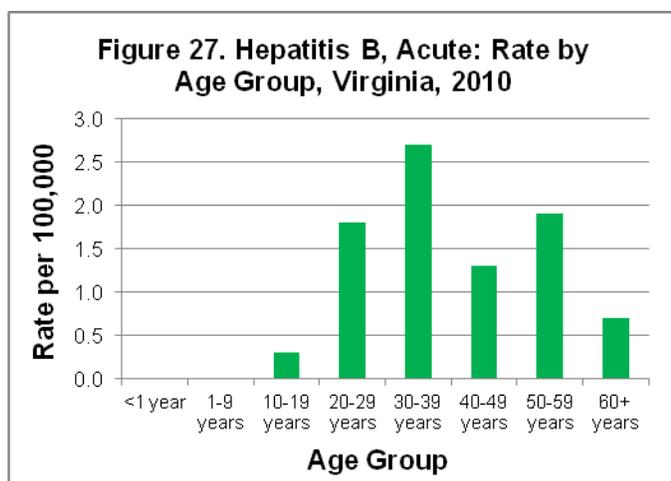
Prevention: Preventive strategies include immunization of people at increased risk of infection; screening of all pregnant women and treatment of children born to women that test positive; routine immunization of infants; routine immunization of adolescents who have not previously been immunized; and screening of donated blood and organs.

Other Important Information: Infection with hepatitis B virus may lead to chronic (i.e., long-term) infection. Death from liver disease occurs in 15-25% of those with chronic infection.

In 2010, 97 cases of acute hepatitis B were reported in Virginia. This represents a 12% decrease from the 110 cases reported in 2009, and a 20% decrease from the five-year average of 121.6 cases per year (Figure 26).



The highest incidence rate was observed in the 30-39 year age group (2.7 per 100,000), followed by the 50-59 and the 20-29 year age groups (1.9 and 1.8 per 100,000, respectively) (Figure 27). Only three cases were reported in persons under the age of 20 years, and no cases were reported in children less than 10 years. Thirty-two percent of reports were missing race information. Among cases with race reported, the rate in the black population (1.4 per 100,000) was twice the rate in the white population (0.7 per



100,000), and seven times the rate in the “other” race population (0.2 per 100,000). The rate in males was similar to the rate in females (1.3 and 1.1 per 100,000, respectively). By region, the central region had the highest incidence (2.6 per 100,000), followed by the southwest region (2.3 per 100,000). The other regions had rates between 0.1 and 1.0 per 100,000. Acute hepatitis B infections do not have a seasonal pattern but as the result of an outbreak, the highest number of cases was observed in the second quarter.

Risk factors were identified in 38 (39%) of cases (including some cases with multiple risk factors). Of those with risk factors, having contact with a person with hepatitis B infection (11, 29%) and having multiple sex partners (11, 29%) were the most frequently reported potential sources of infection. Among the cases reported in 2010, two deaths in adults (one male and one female) were attributed to acute hepatitis B infection.

During 2010, VDH investigated acute hepatitis B infections that occurred among residents of an assisted living facility located in the central region. The investigation led to the identification of newly reported hepatitis B infections among residents and attributed the infections to sharing of blood glucose monitoring equipment. Procedures were introduced to reduce the opportunity for transmission.