Hepatitis B

People with Hepatitis B virus may present with acute, nonspecific symptoms such as loss of appetite, fatigue, or nausea. Some present with jaundice or fatal liver failure. Chronic Hepatitis B infection may result if the antigen is not cleared from the bloodstream 6 months after the acute infection. Age at the time of acute infection is the primary determinant of the risk of progression to chronic infection. More than 90% of infants infected at the time of birth will develop chronic Hepatitis B infection. Between 25 and 50% of children infected between ages 1 and 5 will become chronically infected, whereas only 2 to 6% of acutely infected older children and adults develop chronic Hepatitis B infection.

Hepatitis B is a virus transmitted through blood or bodily fluids including wound drainage, semen, cervical secretions, and saliva. Blood and semen contain the highest concentrations of virus, and saliva contains the lowest concentration. People with chronic hepatitis infections are the primary reservoir for infection.

Chronic Hepatitis B infection is not treatable. Patients who have inactive, chronic infection may still have exacerbations of hepatitis. **Some patients with chronic Hepatitis B infection can progress to develop liver damage which may be so widespread as to cause liver failure resulting in death.**

Before implementation of routine childhood immunization, multiple studies documented high rates of early childhood viral transmission within some communities of the United States. During the 1980s, it is estimated that 18,700 children less than 10 years of age were infected each year. The highest risk of early childhood transmission is among children who immigrated to the United States from countries where Hepatitis B infection is highly endemic. These countries include Southeast Asia, China, and Africa. Person-to-person transmission has been reported in childcare settings, but risk of transmission in childcare facilities in the U.S. has become negligible as a result of high infant Hepatitis B vaccine coverage. Although fewer than 10% of new Hepatitis B infections occurred in children before implementation of childhood immunization programs, approximately one-third of the estimated 1.25 million Americans with chronic Hepatitis B infection acquired their infection as infants or young children. Acute infection today occurs most commonly among adolescents and adults in the United States. Groups at highest risk include users of IV drugs, people with multiple sexual partners, and people engaging in anal sex. Others at increased risk include people with occupational exposure to blood or bodily fluids (such as health care providers, staff of institutions, and nonresidential childcare programs for children with developmental disabilities, patients undergoing dialysis, and sexual or household contacts of people with an acute or chronic infection).

There is no specific therapy for acute Hepatitis B infection. Chronic Hepatitis B infection in adults can be treated with a few FDA approved drugs. 25 to 40% of adults with chronic Hepatitis B infection and liver disease achieve long-term remission. However, the infection is never cured, and it is unknown how long patients will remain in remission.

A way to prevent this infection is by receiving the 3 part immunization series. The most commonly reported adverse effects of the vaccine in adults and children alike are pain at the injection site reported by 3 to 29% of recipients and a fever greater than 99.8 degrees Fahrenheit reported in 1 to 6% of recipients. Anaphylaxis is uncommon, occurring in 1 in 600,000 recipients. **Large, controlled studies show no association between Hepatitis B vaccine and sudden infant death, diabetes mellitus, or neurologic disease including multiple sclerosis.**

Source: Red Book, 27th edition