

HEPATITIS B VACCINE

HEPATITIS B is a DNA virus with three main antigens – surface antigen (HBsAg), core antigen and e antigen. This highly infectious virus affects 30% of those exposed. Up to 50% of adults infected are asymptomatic. Others have varying degrees of illness from liver involvement. Symptoms of infection include abdominal pain, nausea, vomiting and jaundice. Acute illness may last up to 3 months with a 1-2% death rate. 6-10% of adults infected become chronic carriers capable of transmitting the disease to others by exposure to body fluids, usually blood or semen. Infection occurs from 45 to 160 days after exposure with an average of 120 days. In Canada, only <1 % of the population carries HBsAg and is therefore infectious. In Asia 20% are carriers. In Canada homosexuals, intravenous drug users, aboriginal populations and areas with high HIV have a higher prevalence. Health care workers are at risk because of their frequent exposure to blood.

IMMUNIZATION RESPONSE to vaccine is antibody production in the range of 60-95% in adults. Children's seroconversion rates are higher, but healthy adults aged 20-29 have a 95% response rate. This response decreases with age. The seroconversion rate is – 30-39 years 90%, 40-49 years 86%, 50-59 years 71%, and >60 years 50-70%. Illness decreases vaccine effectiveness; in those with renal failure to 60-70%, those with diabetes mellitus to 70-80%, those with chronic liver disease to 60-70% and in those with HIV to 50-70%. After a second course of immunization 50-70% of non-responders develop antibodies.

IMMUNIZATION IS ESPECIALLY RECOMMENDED for persons who have exposure to blood or blood products. It is recommended for pregnant and breast feeding women. The vaccine is typically administered by intramuscular injection into the deltoid muscle in three doses – initial, 1 month later and six months after the first. Protection lasts at least 15 years. Though titres drop immune memory persists. This provides continuing protection.

CONTRAINDICATIONS to vaccination include anaphylactic reactions to aluminum hydroxide or allergy to a previous dose of the vaccine.

ADVERSE REACTIONS are mild – usually injection site discomfort or a transient fever of less than 37.7 degrees. Vaccine component allergy causes anaphylaxis rarely.

CONSENT

I have read the information above and understand the risks and benefits involved in receiving hepatitis B vaccine. I have had the opportunity to ask questions.

I agree to receive the recommended series of three doses of hepatitis B vaccine.

Name _____ Signature _____
Date _____ Witness _____