

ACUTE HEPATITIS B RISK RANKING

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------------|--------------------------------------|--|--|--|--|---------------------------------------|
| High-risk sexual activity | Injection and non-injection drug use | Medical exposure e.g. dialysis , glucometers | Household/sexual exposure and non medical procedures e.g. tattoos, piercings | Incarceration and institutionalization | Travel to or living in endemic country | Other including occupational exposure |

HEPATITIS B TESTING AND VACCINATION

| Tests | Results | Interpretations | Vaccinate? |
|----------------|----------|---|---|
| HbsAg | Negative | Susceptible | Vaccinate if indicated |
| Anti-HBc total | Negative | | |
| Anti-HBs | Negative | | |
| HbsAg | Negative | Immune due to vaccination | No vaccination necessary |
| Anti-HBc total | Negative | | |
| Anti-HBs | Positive | | |
| HbsAg | Negative | Immune due to natural infection | No vaccination necessary |
| Anti-HBc total | Positive | | |
| Anti-HBs | Positive | | |
| HbsAg | Positive | Acutely infected | No vaccination necessary |
| Anti-HBc total | Positive | | |
| Anti-HBc IgM | Positive | | |
| Anti-HBs | Negative | | |
| HbsAg | Positive | Chronically infected | No vaccination necessary (may need treatment) |
| Anti-HBc total | Positive | | |
| Anti-HBc IgM | Negative | | |
| Anti-HBs | Negative | | |
| HbsAg | Negative | Likely indicative of previous exposure, with HBV immunity | Repeat testing for HBsAg, anti-HBc IgM, anti-HBe and anti-HBs is indicated. |
| Anti-HBc total | Positive | | |
| Anti-HBs | Negative | | |
| | | In some cases these results may indicate chronic, HbsAg negative infection. | Consider referral to Internal Medicine if unsure. |

The NWT implemented a Hepatitis B vaccination program in 1995 for all newborns and Grade 4 students.

A catch-up program (1998-2000) for those in Grade 9-12 completed coverage.

Hepatitis B immunization continues to be a universal program for NWT residents at birth.

POST-IMMUNIZATION TESTING FOR UNIVERSAL PROGRAMS IS NOT NECESSARY

However, post-immunization testing should be done when it is important to ensure that there is protection against a continual known or repeated potential exposure to HBV.

- Infants born to infected mothers
- Sexual partners and household contacts of chronic carriers
- Occupational exposure

HEPATITIS B VIRUS (HBV) MARKERS AND THEIR SIGNIFICANCE

| | | |
|-------------------------|---|---|
| HbsAg | Hepatitis B surface antigen | Patient is infected with HBV |
| Anti-HBs | Antibody to hepatitis B surface antigen | Patient is immune due to natural infection or vaccine |
| Anti-HBc (total) | Antibody to hepatitis B core antigen | Patient has been in contact with HBV and may or may not still be infected |
| Anti-HBc IgM | IgM antibody subclass of anti-HBc | Patient has been infected with HBV within the last 6 months |
| HBeAg | Hepatitis B “e” antigen | Marker of high infectivity |
| Anti-HBe | Antibody to hepatitis “e” antigen | Marker of low infectivity |
| HBV-DNA | HBV | Marker of viral replication for treatment and assessment |