Hepatitis B Vaccine Recommendations Algorithm for Health Care Workers
At High-Risk of Past Infection

*This algorithm is intended to be used in conjunction with the Standard for Immunization of Health Care Workers, Standard for Immunization of Post-Secondary Health Care Students and the Hepatitis B Vaccine Biological Page.

Screen for evidence of immunity or past disease;
HBsAg, Anti-HBc and Anti-HBs serology

- **HBsAg positive regardless of other results**
  - Vaccine not required; Laboratory will notify ordering physician and automatically send results to zone Medical Officer of Health or designate for follow up based on zone processes.
  - Advise to alert their school/professional organization.

- **HBsAg negative, Anti-HBc positive,**
  - Anti-HBs positive
    - Consider immune; vaccine not required
  - Anti-HBs negative
    - Recommend follow up with family physician

- **HBsAg negative, Anti-HBc negative,**
  - Anti-HBs positive
    - Consider immune; No further vaccine or serological testing required
  - Anti-HBs negative
    - No further vaccine or serological testing required
    - Consider non-responder. No further vaccine or serological testing required

- **HBsAg negative, Anti-HBc positive,**
  - Documented history of vaccine series
    - Yes
      - Anti-HBs positive
        - Recommend completion of vaccine series. Repeat Anti-HBs 1 to 6 months later
      - Anti-HBs negative
        - Consider immune. No further vaccine or serological testing required
    - No
      - Recommend completion of second series. Repeat Anti-HBs 1 to 6 months later

Notes:
- These recommendations apply to pre-exposure immunization only. Post-exposure recommendations fall under the notifiable disease management guidelines and blood/body fluid exposure protocols.
- Those at high-risk of past infection include:
  - Those who have immigrated to Canada from a country where hepatitis B is endemic – see Hepatitis B Virus Infection – High Endemic Geographic Areas
  - Those who have received repeated blood transfusions
  - Those with a history of dialysis
  - Those with lifestyle risks of infection
- Ideally post-immunization serology (Anti-HBs) should be done a minimum of 1 month to a maximum of 6 months following immunization. For clients where it has been longer than 6 months, order the serology and if negative, give a booster dose followed by serology 1 month later. If still negative after the 4th dose, second series should be completed followed by serology 1 month later.
- If an anti-HBs titre of at least 10 IU/L is confirmed following completion of documented series (including HCW providing a copy of previous results), testing need not be repeated nor should further immunization be undertaken, with the exception of immunocompromised persons who may have further testing ordered through their attending physician.