Hepatitis B Vaccine Dialysis (HBVD) Algorithm for Chronic Renal Disease

Revision Date: July 18, 2023

These recommendations do not impose mandatory immunization requirements for individuals with chronic renal disease requiring dialysis strength vaccine and are not intended to replace the clinical skill, judgement and decisions of the individual’s health care team. This algorithm is meant to supplement existing recommendations for routine immunization as outlined in the current Alberta Immunization Policy.

- Individuals who received standard dose hepatitis B vaccine prior to developing chronic renal disease, who subsequently develop chronic renal disease and are determined to be non-immune should receive a series of HBVD. If non-immune after the HBVD series they should be considered a non-responder.
- In the event individuals received standard dose Hepatitis B vaccine after developing chronic renal disease and are determined to be non-immune, the standard dose hepatitis B vaccine series should NOT be considered valid.

Hepatitis B – HBVD for Dialysis
(for Chronic Renal Disease)

First series (3 doses) HBVD

Test for antiHBs 1 to 6 months after primary series of hepatitis B vaccine.

AntiHBs Positive

- Retest annually

AntiHBs Negative

- Administer second series

- Retest antiHBs 1 month later

AntiHBs Positive

- Retest annually

AntiHBs Negative

- Administer one dose

- Retest annually

Annual retest

- AntiHBs Positive

- Retest annually

- AntiHBs Negative

- Available data do not suggest a maximum number of booster doses. (MMWR 2018)

Individuals with chronic renal disease who have responded initially to hepatitis B vaccine are recommended to receive a booster dose if anti-HBs are negative on annual testing. (CIG 2017)

- Anti-HBs testing 1–2 months following the booster dose to assess response is not recommended. (MMWR 2018)

- STOP

Non-responder. No further hepatitis B vaccine indicated.*

Individuals who fail to respond to 3 additional doses of vaccine are unlikely to benefit from further immunization and should be counselled on alternative risk reduction measures. (CIG 2017)

- *Annual retesting of non-responders is not recommended. Follow post exposure recommendations in event of bloodborne pathogen exposure.