



**NEPHROLOGY PROGRAM
DEPARTMENT POLICIES AND PROCEDURES**

**Hemodialysis - Section 03 - Patient Assessment & Management - Neph 3-04
Hemodialysis: TB, Viral Testing and Vaccination Guidelines
No.: 00729 (TOH Standardized Policy Number)**

ISSUED BY:

Hemodialysis Clinical Practice /
Microbiology

DATE OF APPROVAL:

N/A

APPROVED BY:

Nephrology Steering Committee

LAST REVIEW/REVISION DATE:

2018/04

CATEGORY:

Patient Assessment and Management

IMPLEMENTATION DATE:

2000/12

POLICY STATEMENT: N/A

DEFINITION(S): N/A

ALERTS: N/A

PROCEDURE:

Section A: Vaccinations

1. The following vaccinations will be provided to all chronic hemodialysis patients (excludes patients booked for a living donor renal transplant in the next 3 months):
 - **Pneumovax 23 Vaccine:** provided to all patients. Repeated once, 5 years after initial dose. Patients who have received 2 doses of Pneumovax 23 prior to age 64 years or younger should receive an additional dose of Pneumovax 23 vaccine at age 65 years or older if at least 5 years have elapsed since their previous dose.
 - **Influenza Vaccine:** provided to all patients on a yearly basis, throughout the influenza season. Patients may be referred to their family physician or vaccination may be given in the Hemodialysis unit.
 - **Hepatitis B Vaccine:** provided to all patients at initiation of dialysis
 - **Zostavax® II:** provided to all eligible patients (all patients age 65-70 are eligible). Obtain MD order prior to administering. Do not administer if patient is on immunosuppression medications.

Section B: Routine screening

1. Tuberculosis Testing: will be completed for all patients at initiation of dialysis or in the Multi-Care Kidney (MCK) clinic
2. HIV, Hepatitis D Virus: no routine screening
3. Hepatitis C Antibody, ALT, Hepatitis B Surface Antigen (HBsAg), Hepatitis B Surface Antibody (anti-HBs) and Hepatitis B Core Total Antibody: all patients at initiation of dialysis or in MCK clinic

Section C: Hepatitis C follow-up

2. **If negative:** Hepatitis C Antibody routine testing every 6 months
3. **If positive:** PCR for Hepatitis C Virus (HCV). Send to virology at CHEO (red tube) must call the lab before sending
 - Patient may be referred to Viral Hepatitis Clinic for assessment. No further HCV testing done
3. **If indeterminate:** PCR testing for Hepatitis C Virus. Send to virology at CHEO (red tube) must call the lab before sending
 - If the HCV PCR is negative, continue Hepatitis C Antibody routine testing every 6 months. Any subsequent indeterminate Hepatitis C Antibody on the same patient would not require another HCV PCR unless there is evidence of elevated liver enzymes or other evidence of hepatitis, as assessed by the Nephrologist
 - Document in progress notes that nephrologist has been notified
4. ALT to be tested every 2 months on all hemodialysis patients. If a previously normal ALT becomes elevated (>40U/L), anti-HCV testing should be performed

Section D: Hepatitis B follow-up

1. **If HBsAg positive: isolation during hemodialysis,** refer to [Neph 3-07 \(# 01210\)](#)
 - All HbsAg-positive patient(s) will be tested annually for HbsAg
2. **If HBsAg negative, anti- HBs positive (titre > 10 mIU/ml):**
 - Patient to have annual anti-HBs titres
 - If anti-HBs titre < 10 mIU/ml give one booster dose Recombivax 40 mcg then continue to test annually
3. **If HBsAg negative, anti-HBs negative:**
 - Offer vaccination (refer to Section E)
 - If patient is not vaccinated or a non-responder to vaccination: Patient to be HBsAg tested every 2 months. No further anti-HBs testing

4. **If HBsAg positive on a previously HBsAg negative**, refer to [Neph 3-07 \(# 01210\)](#)
 - Notify Nephrologist and Infection Prevention and Control
 - Repeat Hepatitis B surface antigen, in addition do Hepatitis B DNA, Hepatitis B e antigen, Hepatitis B e antibody, Hepatitis B core total and IgM antibodies STAT

Section E: Hepatitis B vaccination protocol

(Physician Order/Medical Directive)

See Appendix A

1. Recombivax 40 mcg x 3 doses 0, 1, 6 months
 - e.g. 0 month = January
 - 1 month = February
 - 6 months = July
2. No testing during these 6 months
3. One to two months after completion of vaccination protocol patient is tested for HbsAg and anti-HBs
4. **If anti-HBV response is > 10 mIU/mL:** patient will have annual anti-HBV titre testing

If no anti-HBV response (titre < 10 mIU/mL): give 3 additional doses of Recombivax 40 mcg at 0, 1, 6 months. Recheck HBsAg and anti- HBV titre one month following second series of injections

5. If patient continues to be anti-HBV negative, then no additional vaccine is given and patient will be tested every two months for HBsAg. No further anti-HBV titre testing required

Section F: Patient converts to positive HBsAg or anti-HCV

1. Physician will evaluate known risk factors (e.g.: I.V. drugs, blood products, procedures)
2. Nurse immediately informs Infection Control and Transfusion Medicine
3. Implement the appropriate isolation
4. Nephrologist consults Viral Hepatitis specialist as necessary
5. If unsure of results, contact infection control and the covering nephrologist

DOCUMENTATION:

See Appendix B

RELATED POLICIES / LEGISLATION:

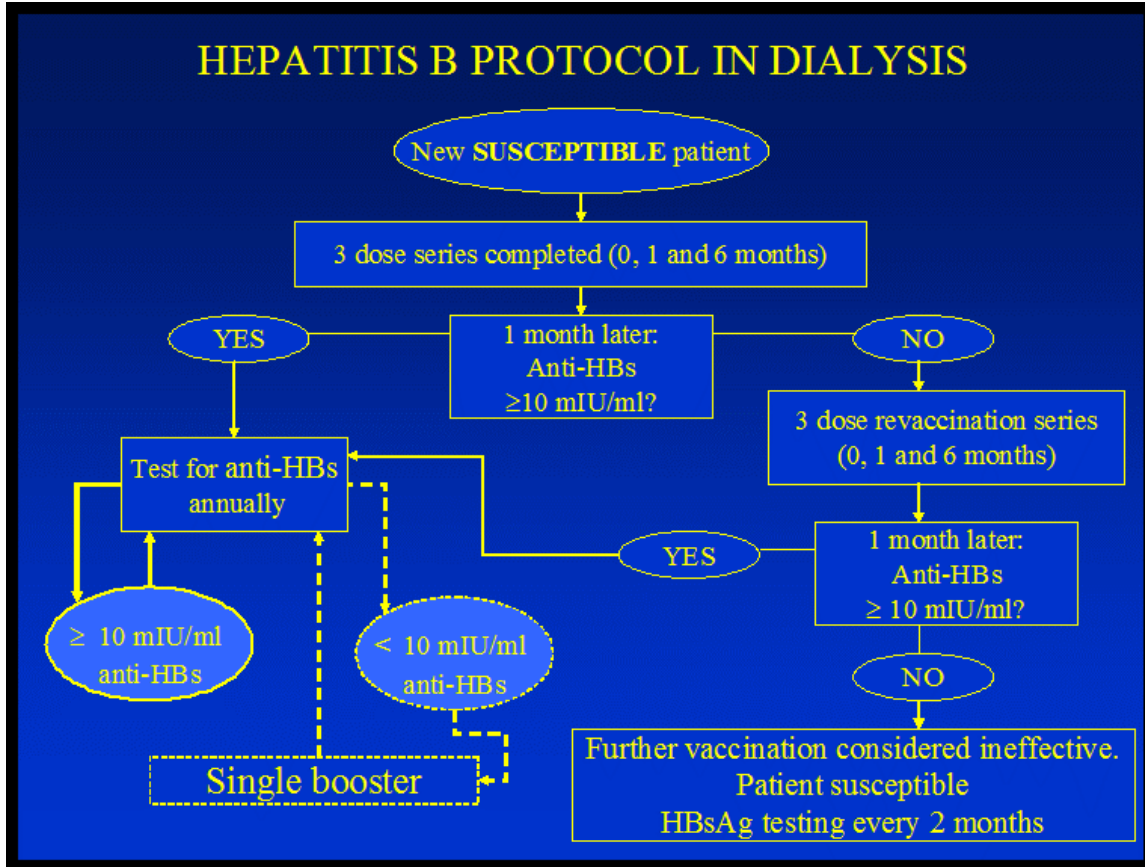
1. Nephrology Policies & Procedures - [Hemodialysis - Section 03 - Patient Assessment and Management - Neph 3-07 \(# 01210\) Management of Hepatitis B Surface Antigen Positive Patients](#)

REFERENCES:

1. [Centers for Disease Control and Prevention. Recommendations for Preventing Transmission of Infections among Chronic Hemodialysis Patients. MMWR, 50: 1-43, April 27, 2001.](#)
2. Canadian Immunization Guide. Public Health Agency of Canada. Last Accessed: September 1, 2016
3. Expert opinion of medical microbiologist and Infection Control physician.

COMMENTS / SIGNIFICANT REVISIONS: N/A

APPENDIX A



APPENDIX B

DOCUMENTATION

Transplant Serology Screen Standardized Documentation

- Documentation by Hepatitis Lead/Delegate/RN/RPN in Transplant Serology Screen Comment Section as suggested below.
- Lot # and Expiry date of vaccines are to be entered in the Progress Notes only using the Frequently Used Phrase (Do not enter Lot # and expiry date in Serology Comment Section).

Template for Comment Section:

New to Dialysis HBsAb <10 Will need Vaccines

Hep B Series #1 (Date of last dose of series) =HBsAb (Resulting Antibody Response)

Hep B Series #2 (Date of last dose of series) =HBsAb (Resulting Antibody Response)

HOLD HBsAb Testing Until –

Hep B vaccine = No Resulting Antibodies = NONRESPONDER

If patient loses Acquired Immunity consider Booster

Hep B Booster (Date booster administered) =HBsAb (Resulting Antibody Response)

No Resulting Antibodies = NONRESPONDER

HBsAb >10IU/L =Testing HBsAb annually (April)

HBsAb <10IU/L =Testing HBsAg Q2Months

Hep C Negative = Testing Q6Months

Hep C Positive F/U =

Mantoux (Date and Results)

Last Influenza Vaccine (Date)

Pneumovax 23 (Date):

- 1st Dose
- 2nd Dose (5 years after 1st dose)
- 3rd Dose (for those who meet criteria)

Zostavax® II (Date)