1.0 PURPOSE AND INTENT

1.1 To ensure that Hepatitis B & C status of pregnant women is communicated to ensure appropriate screening is done, the infant is managed appropriately and the mother receives appropriate education regarding follow-up and breastfeeding.

Note: All recommendations are approximate guidelines only and practitioners must take into account individual patient characteristics and situation. Concerns regarding appropriate treatment must be discussed with the attending physician.

2.0 PRACTICE OUTCOME

2.1 Prevent intrapartum and postpartum transmission of Hepatitis B to infant. Note: the risk for vertical transmission of Hepatitis C is extremely low and no prophylaxis is available.

3.0 DEFINITIONS

3.1 HBsAg: Hepatitis B surface antigen; when positive, is laboratory confirmation of active infection with Hepatitis B.

3.2 Anti-HBs, or HbsAb: laboratory confirmation of antibodies to the Hepatitis B surface antigen which can be acquired from successful vaccination or prior infection.

3.3 HBV: Hepatitis B vaccine.

3.4 HBIG: Hepatitis B Immune Globulin.

4.0 GUIDELINES

Maternal Screening

4.1 Check the mother’s prenatal records for information related to maternal HBsAg status as soon as possible upon admission to the labouring unit.

4.2 If maternal HBsAg status was tested in this pregnancy, but the result is not documented on the prenatal record or in the medical record try to obtain the results from the prenatal care provider, eChart or from Cadham Provincial Laboratory.

4.3 If maternal status was not tested in this pregnancy OR results are not retrievable at time of maternal admission, send a STAT maternal blood sample for Hepatitis B screening (HBsAg) to the Cadham Provincial Laboratory. Consider whether HIV Point of Care testing is required as well.

4.4 Consider sending a repeat STAT maternal blood sample for Hepatitis B screening if any of the following risk factors for Hepatitis B infection are present:
   - Limited or no prenatal care;
   - Diagnosis of a Sexually Transmitted Infection (STI);
   - History of using injection drugs;
   - Recent tattoos or body piercing;
• Self-identification as high risk of HIV infection or Hepatitis B infection;
• Has a sexual partner involved in high-risk HIV/Hepatitis B activities;
• Has a sexual partner known to be HIV/Hepatitis B positive; and/or
• Multiple sexual partners.

4.5 Assess the infant’s risk for acquiring Hepatitis B infection from sources other than the mother, by asking if there are household members with Hepatitis B who will provide care to the infant. If necessary, prophylaxis is given as in Table 1. If uncertain whether household member has acute or chronic Hepatitis B, contact Public Health for clarification.

4.6 If the maternal status remains unknown, document “Hepatitis B Unknown” and the date and time that maternal blood was sent for HBsAg screening in the newborn record. Attach one of the requisition number stickers.

Infant Management

4.7 Upon admission of the infant notify the physician of an infant requiring prophylaxis for Hepatitis B infection.

4.8 If maternal blood was sent to Cadham Provincial Laboratory for STAT HBsAg screening, contact the Laboratory for results prior to the infant being 12 hours of age to determine need for treatment. If results are not available by the time the infant is 12 hours of age, notify the infant’s physician to discuss treatment. The treatment is more effective if given within 2 hours of birth.

4.9 When maternal HBsAg screening results are available, complete documentation in the designated (stamped) follow-up section on the Newborn Nursing Database or on the Care Map.

4.10 Discuss infant’s treatment with the mother, to prevent the transmission of Hepatitis B infection from her to the infant. Document the parent’s informed consent for infant treatment on the newborn medical record.

4.11 Order and administer appropriate infant prophylaxis according to Tables 1 and 2 in Appendix A.


4.13 Document administration of Hepatitis B prophylaxis as follows:
• Newborn Record
• Cumulative Blood Product Record (HBIG)
• Medication Administration Record or EPR Worklist Manager
• SBH only: Napadex
• Public Health Referral Form
• Manitoba Health Immunization Record
• Hepatitis B – Prophylaxis Record Sheet for Infants (comes with vaccine or is obtained on the unit), and
• Manitoba Immunization Monitoring System (Manitoba Health Form) – fax or mail to Regional Public Health Office or First Nations Inuit Health Branch if it is not entered into the system at the site.

4.14 Encourage the mother to establish breastfeeding and explain that the benefits of breastfeeding to the infant outweigh the risk of transmission of Hepatitis B and C.

4.15 Prevent nipple trauma (scabs, bleeding) to decrease the risk of blood-born transmission of Hepatitis C. If mother’s nipples are bleeding, encourage the mother to pump and discard her milk until healing takes place.
4.16 Before discharge provide the mother with written and verbal information related to follow-up immunizations for the infant. See reference list for links to written resources.

4.17 For infants of mothers with positive Hepatitis C, plan serologic testing or PCR for the infant after 12 months of age to allow for passive antibodies from the mother to decrease.

5.0 REFERENCES


5.4 National Centre for Immunization and Respiratory Disease / Centers for Disease Control and Prevention. Hepatitis B Fact Sheet for Parents: https://www.cdc.gov/vaccines/parents/diseases/child/hepb.html


6.0 PRIMARY AUTHORS

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6.2 Pat Wat, Clinical Pharmacist, Child Health
### APPENDIX A

#### Table 1: Infant Prophylaxis according to Birthweight

<table>
<thead>
<tr>
<th>Maternal Status</th>
<th>Infant Birthweight 2000 g or more</th>
<th>Infant Birthweight Less than 2000 g</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBsAg positive</td>
<td>HBV &amp; HBIG</td>
<td>HBV &amp; HBIG</td>
<td>Administer at separate sites:</td>
</tr>
<tr>
<td></td>
<td>• 1&lt;sup&gt;st&lt;/sup&gt; dose within 12 hours of age</td>
<td>• 1&lt;sup&gt;st&lt;/sup&gt; dose within 12 hours of age</td>
<td>• 1&lt;sup&gt;st&lt;/sup&gt; dose within 12 hours of age</td>
</tr>
<tr>
<td></td>
<td>• 2&lt;sup&gt;nd&lt;/sup&gt; HBV dose at 1 month of age</td>
<td>• 2&lt;sup&gt;nd&lt;/sup&gt; HBV dose at 1 month of age</td>
<td>• 2&lt;sup&gt;nd&lt;/sup&gt; HBV dose at 1 month of age</td>
</tr>
<tr>
<td></td>
<td>• 3&lt;sup&gt;rd&lt;/sup&gt; HBV dose at 6 months of age</td>
<td>• 3&lt;sup&gt;rd&lt;/sup&gt; HBV dose at 6 months of age</td>
<td>• 3&lt;sup&gt;rd&lt;/sup&gt; HBV dose at 2 months of age</td>
</tr>
<tr>
<td></td>
<td>• After series complete check anti-HBsAg serum levels</td>
<td>• After series complete check anti-HBsAg serum levels</td>
<td>• After series complete check anti-HBsAg serum levels</td>
</tr>
</tbody>
</table>

#### HBsAg Status unknown and results not obtainable

- On maternal admission send maternal blood STAT
- Administer HBV within 12 hours of age
- Administer HBIG if maternal results are positive OR if results remain unknown at time of infant discharge AND any of the following apply:
  - Mother has risk factors outlined in 4.4
  - Close follow up cannot be ensured due to area of residence or social circumstances
  - At discretion of health care providers

NOTE: HBIG has decreased efficacy after 48 hours but can be given until 7 days of age.

#### Household contact HBsAg positive

- Administer HBV within 12 hours of age
- Consult Pediatric Infectious Diseases to determine if HBIG necessary
- Continue HBV vaccine series:
  - 2<sup>nd</sup> HBV dose at 1 month of age
  - 3<sup>rd</sup> HBV dose at 6 months of age

#### HBsAg Status unknown and results not obtainable

- On maternal admission send maternal blood STAT
- Administer HBV within 12 hours of age
- Administer HBIG within 12 hours of age if mother’s results remain unknown or is HBsAg positive

- Administer HBV within 12 hours of age
- Consult Pediatric Infectious Diseases to determine if HBIG necessary
- Continue vaccine series:
  - 2<sup>nd</sup> HBV dose at 1 month of age
  - 3<sup>rd</sup> HBV dose at 2 months of age
  - 4<sup>th</sup> HBV dose at 6 months of age

### Table 2: Infant Immunization

<table>
<thead>
<tr>
<th></th>
<th>HBIG</th>
<th>HBV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplied as:</td>
<td>1 mL or 5 mL vial</td>
<td>Engerix®-B 10 mcg/0.5 mL (thimerosal reduced)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recombivax HB® 5 mcg/0.5 mL (thimerosal free)</td>
</tr>
<tr>
<td>Dosage</td>
<td>0.5 mL IM</td>
<td>0.5 mL IM (either product)</td>
</tr>
<tr>
<td>Frequency</td>
<td>One dose</td>
<td>Infants &gt; 2000 g: at birth, 1 mo., 6 mo.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Infants &lt; 2000 g: at birth, 1 mo., 2 mo., 6 mo.</td>
</tr>
<tr>
<td>Obtained From</td>
<td>HSC Blood Bank</td>
<td>Pharmacy</td>
</tr>
<tr>
<td></td>
<td>SBH Pharmacy</td>
<td>Pharmacy</td>
</tr>
</tbody>
</table>