New Jersey Perinatal Hepatitis B Transmission: Opportunities for prevention & Increasing Birth Dose Rates

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Disclosure Statement

• I have nothing to disclose relevant to this presentation.
Elimination of Perinatal Hepatitis B: Providing the First Vaccine Dose Within 24 Hours of Birth

COMMITTEE ON INFECTIOUS DISEASES, COMMITTEE ON FETUS AND NEWBORN

The AAP statement recommends that all medically stable newborns with a minimum birth weight of 2000 grams (about 4 lbs., 6 oz.) receive the vaccine within 24 hours of birth. This AAP statement follows the practice now recommended by the Advisory Committee on Immunization Practices (ACIP), part of the Centers for Disease Control and Prevention.

The previous policy statement included an option to delay the first dose of Hepatitis B vaccine until the first newborn pediatric checkup. In the updated statement, the AAP recommends the first dose be given within the first 24 hours because this timing maximizes the effectiveness of the vaccine in preventing newborn infection.
Gaps in HBV vaccine administration

• 1000 infants/year infected in US

• Failure of healthcare system
  – Mother not screened during pregnancy
  – Mother not identified as HBV+ at delivery
    • Labs unavailable (pt. delivers early, transcription error, pt. delivers at different hospital)
  – Infants don’t receive proper vaccination
  – Infant doesn’t receive post-vaccination serology test
Why should we give hepatitis B vaccine to all newborns?

• >24,000 infants/yr are born to HBV+ mothers and not all of their infants receive post-exposure prophylaxis

• **Prevents mother-to-infant transmission:** Prevents 70-95% of infection among infants of HBsAg + women

• **Prevents horizontal transmission:** From infected family members (not just mothers), caregivers (babysitters, grandparents, au pairs) visitors from other countries, other children (bites, open wounds)

• **Prevents iatrogenic transmission:** Transfusion, needle stick, healthcare related infection (HBV more infectious than HIV)

• **Protects when medical errors occur:** Provides a safety net to prevent perinatal HBV infection when medical errors occur
New Jersey Birth Dose Coverage
Data Source: National Immunization Survey, CDC
In 2017 NJ Department of Health sent letters to the CEOs of every birthing hospital

- Included the hospital’s HBV birth dose rates-within 24 hours and before discharge
- Compared anonymously to other NJ hospitals
- Informed hospital that this data would become public in 2 years
Developed project in conjunction with NJ Academy of Pediatrics & funded by NJ Dept of Health

• Multi-prong intervention
  – Develop Perinatal HBV Webinar providers
  – Grand Rounds at pilot area location providers
  – Patient education sheets patients
  – Signage patients providers

Pilot program (evaluate, launch at other locations)
Provider Education
Perinatal HBV Webinar

• Interviewed Saint Barnabas Med Ctr Staff
• Rutgers University Web design team
• Hosted on Rutgers University website
• Dissemination
  – Saint Barnabas & Monmouth Medical Center Grand Rounds
  – Postcard mailing
  – NJHepB Coalition
  – New Jersey Hospital Association
  – NJ American Academy of Pediatrics quarterly newsletter
  – New Jersey Immunization Network
  – MCH Consortia
Dear Health Care Provider,

Every year, almost 1000 infants in the US are infected with Hepatitis B virus (HBV), yet our national goal is to completely eliminate perinatal HBV transmission.

A birth dose of the Hepatitis B vaccine for all infants is critical to achieving this, and AAP and ACIP recently changed the timeframe to be within 24 hours of birth.

However, New Jersey ranks low nationally (48th out of 51) in HBV birth dose administration - a great concern given the ethnic diversity of our state.

You are an integral part to increasing NJ’s HepB birth dose rate and eliminating perinatal HepB transmission!

Yet many pediatricians delay the birth dose, putting the infant at risk of chronic lifelong HBV infection and liver cancer- is it worth it?

Please join and widely distribute this online webinar that features:
- What is Hep B and why is it an issue in New Jersey?
- What are the issues with perinatal transmission? Besides the mother, how else can an infant acquire HBV?
- How are pregnant women with HBV identified and what prenatal care is recommended?
- Best practices at delivery centers to achieve universal HBV birth dose administration
- Importance of HBV testing in infants born to HBV positive mothers

Please visit http://bit.ly/perinatalhepB

CME and CNE credits are available.
This program has been made available by:


Mailed statewide
Pediatricians
OB/GYNS
Family Practitioners

Course went live
September 15th
187 completed
Webinar participants

• Family Practice
• Pediatric Practice
• Obstetric Practice
• Labor & Delivery Centers
• Mother/Baby & Pediatric Nurses
• Settings (hospitals, local & state health departments, public schools, physician offices)
Infants with HBV+ mothers
8%

All infants
92%

Hepatitis B birth dose (given within 24 hrs.) should be administered to

Infants of HBV+ mothers should be screened after birth at

6 to 8 weeks
38%

3 to 6 months
29%

9 to 12 months
18%

12 to 18 months
15%

Hepatitis B Immunoglobulin

Is only given to adults
2%

Provides ST HBV protection
70%

Provides LT HBV protection
22%

Is only given to infants of HBV-mothers
6%

Baseline questionnaire
Post Webinar

HBIG

- Provides LT HBV protection: 22%
- Provides ST HBV protection: 70%
- Only given to infants of HBV-mothers: 6%
- Only given to adults: 2%

85% responded correctly
HBIG provides ST HBV protection

Infants of HBV+ mothers screened

- 6 to 8 weeks: 38%
- 9 to 12 months: 18%
- 3 to 6 months: 29%
- 12 to 18 months: 15%

67% responded correctly
Infants of HBV+ mothers screened for HBsAg and anti-HBs
Let’s End Hepatitis B - Preventing Perinatal Hepatitis B Transmission

This online course is brought to you by the New Jersey Immunization Network, the New Jersey Chapter of the American Academy of Pediatrics, and the Center for Asian Health at Saint Barnabas Medical Center.

Administering the hepatitis B vaccination birth dose is the most important step in preventing perinatal transmission of this dangerous infectious disease that affects millions of people around the world. Unfortunately, New Jersey has the fourth-lowest birth dose vaccination rate in the United States, putting infants in our state at risk of developing chronic hepatitis B.

In this course, you’ll learn to more effectively prevent perinatal transmission of hepatitis B through improved screening and administration of the hepatitis B birth dose. As a healthcare provider, you have the power to improve New Jersey’s vaccination rate and help eradicate hepatitis B!

To access an accessible, text-only version of this course, click here.

Click “Next” to continue.
Interactive Web Module
Interactive Web Module

Patient Education

Importance of Universal Screening

History of Hepatitis B
Target audience:
OB, L/D staff, Postpartum team, Peds

NJ low birth dose rate - factors

- Policies
- Priority - Pediatric
- Priority - Obstetric
- Overall priority
- NJ population is not at risk
- HCP lack of knowledge
- Pt lack of knowledge
- Determining HBV status
- Other

Factors:
- MB nurse
- OB nurse
- Pediatric nurse
- Pediatrician
Worked with CDC to develop education for HBV and Vaccine for New Parents (OB offices, L/D & Postpartum Units)

**VACCINATE YOUR BABY AGAINST HEPATITIS B**

**IT COULD SAVE YOUR BABY'S LIFE.**

**WHAT IS HEPATITIS B?**

- Hepatitis B is a serious liver disease caused by the Hepatitis B virus.
- Hepatitis B often doesn't cause symptoms. Many people can live with hepatitis B for years without feeling sick.
- 1 in 4 people living with hepatitis B can develop serious liver problems, including liver cancer.

**DID YOU KNOW?**

- All pregnant women are routinely tested for hepatitis B.
- People who find out they have hepatitis B can take steps to keep their baby and family protected.
- The Hepatitis B Vaccine is the 1st cancer prevention vaccine.

**HOW IS HEPATITIS B SPREAD?**

- Hepatitis B is spread through contact with blood. An infected family member or caregiver can pass the virus to an infant.
- A pregnant woman who has hepatitis B can pass the virus to her infant at birth, but the vaccine can help protect the baby from getting infected.
- Most people living with hepatitis B got infected as infants or young children when their immune systems were not fully developed.

**WHY SHOULD MY BABY BE VACCINATED AGAINST HEPATITIS B?**

- The hepatitis B vaccine can prevent a baby from getting infected. CDC recommends all babies get the first hepatitis B vaccine shot at birth and follow the vaccine schedule to get the remaining shots.
- The hepatitis B vaccine is safe and effective.
- Delaying the first dose of the hepatitis B vaccine can put your baby at risk for hepatitis B.
- The hepatitis B vaccine has helped prevent millions of infants from getting hepatitis B, which can be a deadly disease.
Patient Education

• Dissemination
  – Targeted RWJBarnabas birthing facilities
    • Include HBV education flyers in pre-birth packets
    • Signage in L/D, waiting rooms, postpartum
  – Collaborate with MCH Consortia
  – Other interventions to complement
Publicity
Next Steps

• Evaluate
  – Pre/Post BD rates

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<tr>
<td>A</td>
<td>69.5%</td>
<td>73.5%</td>
<td>86.0%</td>
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<tr>
<td>B</td>
<td>21.4%</td>
<td>37.1%</td>
<td>63.0%</td>
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• Facilities – what specific interventions worked?
• Train the Trainer for Grand Rounds
• Patient Materials
• Statewide launch
Thank you!

Let’s give #NOHep to the next generation!