

# PERINATAL HEPATITIS B PREVENTING TRANSMISSION FROM MOTHER TO BABY

Connecticut Immunization Hot Topics  
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# Background

- ❑ **Hepatitis B surface antigen (HBsAg) is a marker for acute or chronic hepatitis B infection**
- ❑ **Infants born to HBsAg-positive women are at high risk of perinatal hepatitis B infection**
  - 90% of infected infants develop chronic hepatitis B
  - Approximately 25% of chronically infected (HBsAg+) infants die prematurely from cirrhosis or hepatocellular carcinoma

# Background (2)

- ❑ **Advisory Committee on Immunization Practices (ACIP) recommendations (2005):**
  - HBIG\* and hepatitis B (HepB) vaccine within 12 hours of birth
  - Completion of 3 or 4 dose HepB series by 6-12/15 months of age
  - Receive serologic HBsAg and anti-HBs testing after completion of vaccine series but not before 9 months of age (generally at next well child visit)
  - Revaccinate if necessary based on serologic test results
    - Protected = Anti HBs  $\geq$  10mIU/mL
- ❑ **3-dose vaccine series is 85%-95% effective in preventing chronic hepatitis B among exposed infants**

\*HBIG- Hepatitis B Immune globulin

Slide 3

# Perinatal Hepatitis B Prevention Program

- ❑ Created in 1990
- ❑ Funded by CDC Immunization Grants
- ❑ Programs in 64 jurisdictions (50 states, 6 cities, 8 territories)
- ❑ Key Objectives:
  - Screen all pregnant women for HBsAg and identify HBsAg-positive pregnant women
  - “Case manage” infants born to HBsAg-positive women

# Prenatal Hepatitis B Prevention Program Statistics

- ❑ **2008 birth cohort results**
- ❑ **Expected births to HBsAg-positive women**
  - Nationally 17,818 -25,268
  - Connecticut 180-249
- ❑ **Identified births to HBsAg-positive women**
  - Nationally 12,260 (69%-49% of expected)
  - Connecticut 109 (61% -44% of expected)

# Post Exposure Prophylaxis

- ❑ **2008 birth cohort that received HBIG & Hep B dose at birth**
  - Nationally 96%
  - Connecticut 90%
- ❑ **2008 with no post-exposure prophylaxis at birth**
  - Nationally 1.89%
  - Connecticut 9.1%

# Hepatitis B Series Completed and Post Vaccination Serology Testing (PVST)

- ❑ **2008 birth cohort with HBIG and all Hepatitis B doses by 12 months of age**
  - *Nationally 78%*
  - *Connecticut 61%*
- ❑ **2008 birth cohort with serologic testing**
  - *Nationally 56%*
    - *95% documented results*
    - *Connecticut 35%*
    - *100% documented results*

# Program Challenges

- ❑ **Infants enrolled in case management lost to follow up before completion of series and PVST**
  - Nationally 14%
  - Connecticut 35%
- ❑ **Data Collection**



# Opportunities for Improvement

- ❑ **Improve data collection nationally**
- ❑ **Screen all pregnant women for HBsAg status**
  - Notify Perinatal Program of pregnant women with HBsAg positive test results
  - Copy of lab results in L&D chart
  - Test women at time of delivery if status is unknown
- ❑ **Enroll Infants in case management**
  - Keep family contact information up to date
- ❑ **Complete vaccine series and PVST**
  - Notify Perinatal Program of results

# CONNECTICUT OPPORTUNITIES WHAT CAN WE DO BETTER?

- ❑ CT DPH
  - ❑ PROVIDER EDUCATION
  - ❑ PATIENT EDUCATION
  - ❑ PERSONNEL RESOURCES

# Connecticut Opportunities

- **Providers and Birthing Hospitals**
  - **Review current policies and procedures**
    - Hepatitis Testing
    - Vaccine (HBIG) administration
    - Documentation/review
  - **Patient Education**

# Summary

- ❑ **Components of program are challenging but worth the effort**
- ❑ **Timely Post-exposure prophylaxis with completion of a 3-dose series is 85%-95% effective in preventing Hepatitis B infections in infants born to HBsAg-positive women**

# Contact Information

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