PERINATIAL HEPATITIS B
PREVENTING TRANSMISSION FROM MOTHER TO BABY

Connecticut Immunization Hot Topics
Teleconference Series
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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
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 > 10mIU/mL

3-dose vaccine series is 85%-95% effective in preventing chronic hepatitis B among exposed infants

*HBIG- Hepatitis B Immune globulin
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
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