



Webinar Series Hepatitis B: Education and Support for Health Departments

Exploring National and Local Approaches to Perinatal Hepatitis B Prevention

Wednesday, May 1st 2019 11:00 AM - 12:00 PM PDT / 2:00 - 3:00 PM EDT

Speakers:

Noele Nelson, MD, PhD, MPH

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Questions? Submit questions in the chat box at anytime throughout the webinar.



Poll Q1: Which of the following best describes your job title?

Perinatal hepatitis B coordinator
Disease Intervention Specialist
Nurse
Epidemiologist
Other



Poll Q2: If you are representing a health <u>department, please tell us more about your</u> jurisdiction and the population size you serve:

- □Small jurisdiction (49,999 or less) □Medium jurisdiction (50,000 – 199,999)
- \Box Large jurisdiction (200,000 +)



Poll Q3: How would you describe your community?

RuralSuburbanUrban

Exploring National and Local Approaches to Perinatal Hepatitis B Prevention





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National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Perinatal Hepatitis B

Noele Nelson, MD, PhD, MPH **Acting Branch Chief, Prevention Branch**

Division of Viral Hepatitis NCHHSTP/Centers for Disease Control and Prevention of **Viral Hepatitis**

May 1, 2019



Outline

- **Overview of Perinatal Hepatitis B and Prevention Strategies**
- Hepatitis B Vaccination
- Post-vaccination Serologic Testing
- Perinatal Hepatitis B Prevention Program

Perinatal Hepatitis B

mucosal exposure to infectious blood or body fluids

80%-90% of infants who are infected with HBV become chronically infected

About 25% of individuals chronically infected will develop cirrhosis or liver cancer and die prematurely

HBV infected infants are usually asymptomatic

Schillie S, Vellozzi C, Reingold A, Harris A, Haber P, Ward JW, Nelson NP. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep. 2018 Jan 12;67(1):1-31.

Hepatitis B virus (HBV) transmission occurs through percutaneous or

Perinatal Hepatitis B Case Definition

- Confirmed
- Child born in the United States to an **HBV-infected mother** and infant is positive for hepatitis B surface antigen (HBsAg) at \geq 1 month of age and \leq 24 months of age OR positive for HBeAg or HBV DNA \geq 9 months of age and \leq 24 months of age.
- Probable
- Child born in the United States and infant is positive for HBsAg at \geq 1 month of age and \leq 24 months of age OR positive for HBeAg or HBV DNA \geq 9 months of age and \leq 24 months of age, but whose mother's hepatitis B status is **unknown** (i.e. epidemiologic linkage not present).

Steps to Prevent Perinatal Transmission of HBV

- Maternal screening
- Test all women for Hepatitis B surface antigen (HBsAg) with each pregnancy ____ American Association for the Study of Liver Diseases (AASLD) suggests antiviral therapy to —
- reduce perinatal HBV transmission when maternal HBV DNA is >200,000 IU/mL
- Infant vaccination All infants born to HBsAg-positive women need to:
- Receive hepatitis B vaccine (with passive immunoprophylaxis [HBIG]) within 12 hours of birth
- Complete the hepatitis B vaccine series
- Post Vaccination Serologic Testing (PVST)





APPLICABLE TO CRITICAL ACCESS HOSPITALS AND HOSPITALS

Effective xxx

Provision of Care, Treatment, and Services (PC)

PC.01.02.01

The organization assesses and reassesses its patients.

Elements of Performance for PC.01.02.01

For organizations that provide obstetric ser-14 vices: Upon admission to labor and delivery, the mother's status of the following diseases (during the current pregnancy) is documented in the mother's medical record:

elect not to perform this test but instead administer prophylactic antibiotics to the mother.

16. For organization that provide obstetric services: If the mother tests positive for human immunodeficiency virus (HIV), hepatitis B, group

Elements of Performance Related to Maternal

- Human immunodeficiency virus (HIV)
- Hepatitis B
- Group B streptococcus (GBS)
- Syphilis
- For organizations that provide obstetric 15. services: If the mother had no prenatal care or the disease status is unknown, testing for the following diseases are performed and the results documented in the mother's medical record:
 - Human immunodeficiency virus (HIV)
 - Hepatitis B
 - Group B Streptococcus (GBS)
 - Syphilis

Note: Because GBS test results may not be available for 24-48 hours, organizations may

B streptococcus (GBS), or syphilis when tested in labor and delivery or during the current pregnancy, that information is also documented in the newborn's medical record after delivery.

Hepatitis B Vaccine

Hepatitis B Vaccine

- Introduced in 1982
- Safe, immunogenic, effective
- Administered as 3- or 4-dose series, starting at birth
- Primary 3-dose series efficacy, 90-95%
- Hepatitis B vaccine induces antibody to hepatitis B surface antigen (anti-HBs)
- after a complete vaccine series
- Estimate that $\geq 90\%$ of participants had evidence of protection 30 years later^{*} _
- Booster doses not routinely recommended

Protection against infection is associated with initial antibody concentration $\geq 10 \text{ mIU/mL}$

HBIG and Hepatitis B Vaccine Efficacy

Hepatitis B immune globulin (HBIG), passive immunoprophylaxis, provides a short-term increase (i.e., 3-4 months) in the antibody to hepatitis B surface antigen (anti-HBs) which might improve protection until the infant responds to vaccine

- For prevention of mother to child transmission of HBV the efficacy of:
- HBIG and HepB vaccine combined is ~94%
- HBIG alone is ~71%
- Hepatitis B vaccine alone is ~75% Based on infants of mothers HBsAg-positive and HBeAg-positive

Schillie, S.F. and T.V. Murphy, Vaccine, 2013. 31(21): p. 2506-16. Beasley RP, et al. Lancet. Nov 12 1983;2(8359):1099-1102. Lee C, Gong Y, Brok J, Boxall EH, Gluud C. BMJ. Feb 11 2006;332(7537):328-336.



Birth Dose Provides a "Safety Net"

- The birth dose provides a "safety net" for:
- because of:
 - Medical errors in interpreting or documenting maternal screening results

 - •
- Infants at risk for exposure after the perinatal period

MMWR Recomm Rep. 2018 Jan 12;67(1):1-31. Willis, B.C., et al., 2010. 125(4): p. 704-11.

Infants of HBsAg-positive women not identified for post-exposure prophylaxis (PEP)

Failure to test women at delivery who are admitted without prenatal HBsAg test results

Infants who have contact with a HBsAg-positive caretaker or household member



Birth Dose

- within **12 hours of birth**, administered at different injection sites.
- Only single-antigen HepB vaccine should be used for the birth dose
- stable infants weighing $\geq 2,000$ grams and born to HBsAg-negative mothers.
- Aligns with the World Health Organization (WHO) recommendations

MMWR Recomm Rep. 2018 Jan 12;67(1):1-31.

All infants born to HBsAg-positive women should receive HepB vaccine and HBIG

Recommend hepatitis B vaccine birth dose within **24 hours of birth** for medically

ACIP Recommendations PEP: For all infants born to KNOWN HBsAg-positive women (all birth weights)

- Administer HBIG and monovalent hepatitis B vaccine within 12 hours of birth (separate injection sites – separate limbs)
- Document date and time of administration
- Timely completion of ≥3-doses HepB vaccine, either as monovalent or combination vaccine

MMWR Recomm Rep. 2018 Jan 12;67(1):1-31.

Question - 1

For infants with birth weight <2000 grams born to mothers with unknown HBsAg status, what post-exposure prophylaxis should the infant receive within 12 hours of birth?

- A. Hepatitis B vaccine alone
- B. HBIG alone
- C. HBIG + hepatitis B vaccine
- D. None of the above

Question - 1

For infants with birth weight <2000 grams born to mothers with unknown HBsAg status, what post-exposure prophylaxis should the infant receive within 12 hours of birth?

- A. Hepatitis B vaccine alone
- B. HBIG alone
- C. HBIG + hepatitis B vaccine
- D. None of the above

ACIP Recommendations PEP: Maternal HBsAg Status UNKNOWN Infant Low Birth Weight (<2000 grams)

- Test mother as soon as possible; docume provider(s)
- Administer <u>both</u> HBIG and monovalent h separate injection sites
- For infants weighing <2000 grams, the bi vaccine series

MMWR Recomm Rep. 2018 Jan 12;67(1):1-31.

Test mother as soon as possible; document, and communicate HBsAg results to mother's

Administer both HBIG and monovalent hepatitis B vaccine within 12 hours of birth at

For infants weighing <2000 grams, the birth dose is not counted toward a ≥3-dose HepB

ACIP Recommendations PEP: Maternal HBsAg Status UNKNOWN Infant Birth Weight ≥2000 grams

- Test mother for HBsAg as soon as possible
- mother's results
- If infant is discharged before results known, inform:
- Mother
- Pediatric provider —
- Perinatal Hepatitis B Prevention Coordinator

MMWR Recomm Rep. 2018 Jan 12;67(1):1-31.

Administer monovalent hepatitis B vaccine within 12 hours of birth – Do not wait for

If results are positive or remain unknown, administer HBIG to infant within 7 days of life

Hepatitis B Vaccine Policy and Reported Number of Acute Hepatitis B Cases – United States, 2000-2016



*Health care providers, MSM, IDU, hemodialysis patients, household & sexual partners of persons with chronic HBV, persons in certain institutional settings, e.g., inmates of long-term correctional facilities.

Source: National Notifiable Diseases Surveillance System (NNDSS)

Question - 2

According to the National Immunization Survey-Child, the percent of infants 0-3 days of age who received the hepatitis B vaccine birth dose in 2017 was closest to:

- **A**. 60%
- **B.** 70%
- **C**. 80%
- **D.** 90%

Question - 2

The percent of infants 0-3 days of age who received the hepatitis B vaccine birth dose in 2017 was closest to:

- A. 60%
- **B. 70%**
- **C**. 80%
- **D.** 90%

Hepatitis B Birth Dose (0 to 3 Days of Age) Vaccine Coverage, U.S., 2003-2017 Healthy People 2020 target: 85%



Year

Source: National Immunization Survey, CDC

Estimated Hepatitis B Vaccination Coverage 19-35 Months of Age, U.S., 1994-2017



Coverage (%)

Source: National Immunization Survey, CDC

HP 2020 Target=90%



Post-vaccination Serologic Testing (PVST)

Question - 3

Post-vaccination serologic testing of infants born to HBsAg-positive mothers should be done after how many months of age?:

- A. 6 months
- B. 9 months
- C. 12 months
- D. 15 months

Question - 3

Post-vaccination serologic testing of infants born to HBsAg-positive mothers should be done after how many months of age?:

- A. 6 months
- **B.** 9 months
- C. 12 months
- D. 15 months

Post-vaccination Serologic Testing

- Infants born to Hepatitis B-infected mothers should undergo post-vaccination serologic testing (PVST) after completion of the HepB vaccine series to identify:
- Infected infants so that they can receive treatment
- Infants not responding to vaccination so they can be revaccinated —
- Post-vaccination serologic testing:
- At 9-12 months of age, if series completed on schedule 1-2 months after final dose in series, if series completion is delayed Never before 9 months of age (NO GRACE PERIOD)

- Test for both HBsAg and anti-HBs
 - Don't test for antibody to hepatitis B core antigen (anti-HBc)

PVST for Infants, cont.

- Why wait and test at 9 months of age or older?
- not vaccination outcome
- Maximize the likelihood of detecting late HBV infection

MMWR Recomm Rep. 2018 Jan 12;67(1):1-31. Euler, G.L., et al., Pediatr Infect Dis J, 2003. 22(2): p. 123-9. Ko, S.C., et al., Vaccine, 2014. 32(18): p. 2127-2133.

Earlier testing may detect anti-HBs from HBIG administered at birth and

Perinatal Hepatitis B Prevention Program (PHBPP)

U.S. Perinatal Hepatitis B Prevention Program (PHBPP)

- In 1990, CDC funded the PHBPP
- Funded in CDC Immunization Cooperative Agreements (Section 317 funding) ____
- Programs in 64 jurisdictions (50 states, 6 cities, 5 territories & 3 freely associated island nations)
- PHBPPs aim to ensure:
- Identification of all Hepatitis B-infected pregnant women
- Timely receipt of infant prophylaxis
- Infant post-vaccination testing after completion of Hepatitis B vaccine series - Revaccination of infants with non-response to Hepatitis B vaccine

Perinatal Hepatitis B

In 2016, **32** cases of perinatal hepatitis B were reported to CDC from 13 states

Year	Perinatal B Cases (HBsAg-positive infants)
2016	32
2015	37
2014	47
2013	48
2012	40

Source: CDC, National Notifiable Diseases Surveillance System.

A 2009 modeling study estimated that **952** chronic hepatitis B cases occur each year among persons infected with HBV at birth, for a baseline annual rate of 3.84%, among infants of HBsAg-positive women

Ko SC, et al. Estimated Annual Perinatal Hepatitis B Virus Infections in the United States, 2000-2009. J Pediatric Infect Dis Soc. 2016 Jun;5(2):114-21



Identified Births to HBsAg-positive Women Compared to Total Expected Births to HBsAg-positive Women, 2008-2014



Perinatal Hepatitis B Prevention Program

Expected Births to HBsAg-positive Women 2015-2016 by Mother's Region of Birth (PE)



Perinatal Hepatitis B Prevention Program

Koneru A, Schillie S, Roberts H, Sirotkin B, Fenlon N, Murphy TV, Nelson NP. Estimating Annual Births to Hepatitis B Surface Antigen-Positive Women in the United States by Using Data on Maternal Country of Birth. Public Health Rep. 2019 Apr

National Trends in PHBPP Indicators, 2008-2016



Provisional Data: Do Not Reference

Conclusions

- To decrease perinatal hepatitis B infections the following are needed: Increase identification of HBsAg-positive pregnant women
- - Maternal management
 - Maternal 3rd trimester antivirals if indicated
- Timely infant prophylaxis and infant management
- Increase hepatitis B birth dose coverage overall
- Increase post-vaccination serologic testing of infants born to HBsAgpositive mothers

Resources (Cont.)



https://www.cdc.gov/hepatitis/hbv/perinatalxmtn.htm

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Perinatal Transmission

Hepatitis B virus (HBV) infection in a pregnant woman poses a serious risk to her infant at birth. Without postexposure immunoprophylaxis, approximately 40% of infants born to HBV-infected mothers in the United States will develop chronic HBV infection, approximately one-fourth of whom will eventually die from chronic liver disease.

Perinatal HBV transmission can be prevented by identifying HBV-infected (i.e., hepatitis B surface antigen [HBsAg]-positive) pregnant women and providing hepatitis B immune globulin and hepatitis B vaccine to their infants within 12

Preventing perinatal HBV transmission is an integral part of the national strategy to eliminate hepatitis B in the United States. National guidelines call for the

On This Page

Guidelines and Recommendations

Scientific Tools and Resources

Policies and Procedures for Prenatal Care and Delivery Hospitals

Additional Resources

Patient Education Tools

Universal screening of pregnant women for HBsAg during each pregnancy

 Screening all HBsAg-positive pregnant women for HBV DNA to guide the use of maternal antiviral therapy during pregnancy. AASLD suggests maternal antiviral therapy when HBV DNA is >200,000 IU/mL

Case management of HBsAg-positive mothers and their infants

· Provision of immunoprophylaxis for infants born to infected mothers, including hepatitis B vaccine and hepatitis B immune globulin within 12 hours of birth

· Routine vaccination of all infants with the hepatitis B vaccine series, with the first dose administered within 24 hours of

Guidelines and Recommendations

Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on

Protect Your



Resources (Cont.)

Information for Pregnant Women

"Protect Your Baby Fo



This 2-p who ha importa prevent infants.

Vaccinate Your Baby



This con B ai vac

Hepatitis B and a Hea



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Korean, Hmong and Ta and listen along to the

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Hepatitis B is and how pictures along with wr Spanish.

https://www.cdc.gov/knowhepatitisb/ materials.htm#pregnantwomen

or Life" fact sheet page fact sheet is for pregnant women ave Hepatitis B and explains the ance of the Hepatitis B vaccine in ting the spread of hepatitis B to their	English (PDF - 839KB) Chinese (PDF - 1.4MB) Vietnamese (PDF - 1.4MB) (PDF - 1.7MB) Korean (PDF - 1.1MB) Burmese (PDF - 1.1MB) (PDF - 2.9MB) French (PDF - 0.7MB)	Hmong. ▶ [PDF – 1.4MB] Khmer. ▶ [PDF – 2.7MB] Lao. ▶ [PDF – 5.9MB] Russian. ▶ [PDF – 0.6MB] Spanish. ▶ [PDF – 0.7MB] Tagalog. ▶ [PDF – 1.5MB]
Against Hepatitis B s two page infographic answers nmonly asked questions about hepatitis nd explains the importance of the cine for infants	English [PDF – 2 MB] Spanish [PDF – 2 MB]Custor filesPerinatal Infographic-Custor [PDF – 3 MB] Logo + Og Info PDF Template Customized Infographic Direct	omizable version tomizable Version 🔊 . 🗊 [DOC – 28 KB] tions. 🎑 [PDF – 443 KB]
althy Baby dio-visual presentation explains why need to get the hepatitis B vaccine if other has hepatitis B. This presentation able in English, Chinese, Vietnamese, aglish, and allows participants to read presentation.	English Chinese Vietnamese Korean Hmong Taglish	
Healthy Baby esentation provides details on the tis B vaccine that an infant will receive at the infant's mother has Hepatitis B. It cludes information on how common v it is spread. The presentation contains ritten text and is available in English and	English Spanish	

Resources (Cont.)

- **2018 ACIP Recommendations**
- https://www.cdc.gov/mmwr/volumes/67/rr/pdfs/rr6701-H.pdf
- IAC Website: Birth dose initiative http://www.immunize.org/protect-newborns/ _____
- **Asian Liver Center**
- http://liver.stanford.edu/
- **Patient Education Resources CDC Materials and Links**
- https://www.cdc.gov/hepatitis/hbv/patienteduhbv.htm



Poll Q4: How many perinatal hepatitis B cases did you manage last year (2018)? □Less than 50 □50 - 100 □100 - 200 $\Box 200 \text{ or more}$

HOUSTON HEALTH DEPARTMENT







Innovative Strategy to Increase

Identification of Infants Born to

Chronic Hepatitis B Mothers

Presented by Essi M. Havor MSN, RN, PHNA-BC Houston Health Department, Immunization Bureau May 1, 2019





Learning Objectives

At the end of the session, participants will learn about and have opportunity to discuss....

- challenges to the identification of HBsAg-positive women and their infants
- promising practices to increase identification of HBsAg-positive women and their infants
- lessons learned and next steps





Part 1: Overview of Perinatal Hepatitis B Prevention Program



INTRODUCTION

- $\sim 25,000$ infants are born to women chronically infected with hepatitis B every year
- $\sim 10,000$ of these infants would become chronically infected without timely PEP
- $\sim 2,500$ would die of liver failure or liver cancer as early as age 10
- \sim 1,000 newborns are infected annually

Healthy People 2020 target (among infants and children aged 1 to 24 months): 400 cases 2007 baseline: 799

Source: Ko SC, Fan L, Smith EA, Fenlon N, Koneru AK, Murphy TV. Estimated Annual Perinatal Hepatitis B Virus Infections in the United States, 2000–2009. Journal of the Pediatric Infectious Diseases Society. 2014 Dec 18:piu115.





Hepatitis B Surveillance in Texas

• Acute HBV must be reported within 1 week

Chronic HBV is NOT reportable except:

- Prenatal & Delivery, reportable within 1 week
- Perinatal (<24 months), reportable within 1 work day

Not all hospitals report electronically





Six Responsibilities of the Perinatal Hepatitis B Prevention Program

Assure administration Identify ALL of postexposure HBsAg positive prophylaxis within pregnant women 12 hours of birth to and their infants. exposed infants. Universal hepatitis B vaccine birth dose administration. Identify and vaccinate susceptible household Assure completion of contacts ≤ 24 months of hepatitis B vaccine series age; household contacts and postvaccination > 24 months of age and serologic testing (PVST) sexual contacts are of exposed infants. referred out

> Conduct active surveillance, quality assurance, outreach, and education to improve the PHBPP program.

Texas Perinatal Hepatitis B Prevention Program Manual (2016)

HOUSTON HEALTH DEPARTMENT



Part 2: City of Houston 2016 Program Evaluation



City of Houston (COH) Program Background

- □ Funded by CDC since 1991
 - **City of Houston residents only**
- **CDC** Estimates:
 - □ 255 422 infants born to HBsAg-positive mothers in 2015
- identified.
- **Given State of COH program**

Jurisdiction	2013	2014	2015
COH	37	51	76

Table 1. Number of Identified Infants Prior to 2016 Audit



90% of the estimated births to HBsAg-positive pregnant mothers should be

2016 PROGRAM EVALUATION: RESULTS

- o Under-reporting of HBsAgpositive mothers is a threat
- 4 out of 10 infants were not reported in 2014 & 2015



Figure 1: Observed Discrepancy Between Cases Reported and Not Reported



Part 3: City of Houston 2018 Program Evaluation



COH Context: 2014-2015

- Houston PHBPP has been \bigcirc conducting hospital audit every year
- O December 31, 2015: 51 infants born in 2014 were identified Vs. 301/412
- o 2016 audit: 71 additional infants
- December 31, 2015: Ο

76 infants born in 2015 were identified Vs. 255/422

- 0 U.S. 11,157 infants Vs. 18,945/26,444
- <u>Note:</u> excluded out of jurisdiction cases Ο





	2013	2014	2015
Before	37	51	76
After		122	158

Table 2. Number of Infants Identified Before and After 2016 Audit

PROGRAM EVALUATION: METHODS

2016 Methodology:

- 24 Labor and Delivery hospitals in Harris Ο County
- Evaluation period: 2014-2015 Ο
- **Old Methodology** Ο
 - CDC Policy Survey
 - Record Review: Hepatitis B birth dose administration & HBsAg screening with CDC developed tool
- 2016 Methodology Ο
 - Old methodology &
 - Review of <u>ALL HBsAg</u> positive mother- \bullet baby records (list provided by the hospitals)
 - Compare positive records with cases managed by the assessment date





2018 Methodology:

- 25 L & D Ο
- Evaluation Period: 2016-2017 \bigcirc
- Previous Method: 2016 Ο
- New Method: Ο
 - 2016 methodology
 - Pharmacy/HBIG log

2016-2017 Record Review Results

Table 3. Positive HBsAg and Administration of HBIG

Hospital	Positive HBsAg		HBIG Given		
Code	Records	_			
	2016	2017	2016	2017	
19	1/56	4/57	1/1	3/3	
13	15/71	15/70	20/20	19/19	
10	4/57	4/53	6/6	4/4	
3	9/65	10/68	9/10	10/10	
9	10/68	9/58	12/13	9/9	
5	1/50	4/61	1/1	4/4	
6	Xxx	0/51	Xxx		
17	2/57	3/60	0/1	0/3	
25	12/69	4/57	11/11	4/4	
20	8/65	10/63	11/11	12/12	
18	20/78	6/68	20/20	7/7	
16	3/58	11/59	3/3	11/12	
11	Xxx	1/54	Xxx		
15	3/61	3/56	1/3	3/3	
8	10/67	7/64	10/10	7/7	
2	14/85	21/81	15/15	25/25	
22	3/58	1/61	3/3	1/1	
7	2/60	1/55	2/2	1/1	
21	26/86	20/76	26/26	20/20	
14	9/66	8/65	9/9	8/8	
4	14/72	13/73	13/13	16/16	
24	11/62	19/57	13/13	20/21	
23	40/113	28/88	49/49	39/39	
12	0/57	0/57	1/1		
1	37/97	44/100	39/40	46/48	
	254/1557	246/1612	275/281	269/276	

60 additional infants identified from HBIG/pharmacy log : 27 (~10%) in 2016 & 33 (~12%) in 2017

DEPARTMENT

Out of jurisdiction cases excluded, 2 out of 10 infants were not reported



Other Findings

- D Policy issues (reporting to LHD not specified...)
- Image: Mother's HBsAg status documentation
- Infant's records
- Vaccine & HBIG administration documentation



PROGRAM EVALUATION: LESSONS LEARNED

Houston Program

- o Policy and Procedures survey during record review
- o Poor communication between program staff and hospitals
- o Reporting Process is an issue
- Pregnancy status is not force field (usually not reported on the laboratory reports)
- Post audit feedback to the hospitals was very helpful to the hospitals



Hospitals

- Poor quality in data reported by hospitals
- o Laboratory report Vs. L&D logs
- Pharmacy logs of HBIG administration Vs. Nursery logs Vs EMR data
- Inconsistency in reporting process
- Turn-over effect Ο
- Shift/schedule effect
- Hospitals where delivery nurse is required to report +HBsAg mother, have low underreporting rates

PROGRAM CHALLENGES

- o Low and late identification of HBsAgpositive mothers is a challenge nationwide
 - U.S. 11,157 infants Vs. 18,945/26,444
- o Pregnancy status on laboratory reports remains a big problem
- o All laboratories are not reporting electronically
- Serving transient populations
- **Tourism effect** = high number of HBsAg-positive mothers move out of the country within 1-3 months after delivery (Growing problem)





- o Policies focusing on Infants not mothers
- Chronic HBV surveillance
- 0 Underfunded
- o Providers' Knowledge & behaviors

MOVING FORWARD

- Develop Perinatal HBV toolkit for clinicians (completed) Ο Implementing quarterly reporting of HBsAg-positive mothers Working with internal surveillance team to recruit more
- laboratories (in progress)
- Continue to review HBsAg-positive mothers during program 0 evaluation:
 - •Nursery log
 - •Pharmacy log
 - •Laboratory annual report
 - •EMR data
- Plan to collaborate with surrounding counties for next audit Ο





Recommendations

- o Resource and labor intensive
- Consider partnership with colleges/universities 0
- o Consider alternative audit schedule: one hospital every other month/ quarter
- o Conduct post-audit session with the hospitals
- o Provide incentives: certificates









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Thank You!











Please submit questions in the chat box!

Resources

NACCHO HBV Toolkit



Available at: toolbox.naccho.org

Additional HBV information & printable fact sheets

The liver is the largest organ inside the body. In an adult, it is about the size of a football and weighs close to three pounds. It is located behind the ribs in the upper right-hand portion of the abdomen. Shaped like a triangle, the liver is dark reddishbrown and consists of two main lobes. There are over 300 billion specialized cells in the liver that are connected by a well-organized system of bile ducts and blood vessels called the biliary system.

The liver is such an important organ that we can survive only one or two days if it shuts down—if the liver fails, your body will fail, too. Fortunately, the liver can function even when up to 75% of it is diseased or removed. This is because it has the amazing ability to create new liver tissue from healthy liver cells.

What does my liver do?

Stores vitamins, sugar and iron to help give your body energy. Controls the production and removal of cholesterol. Clears your blood of waste products, drugs, and other poisonous substances. Makes clotting factors to stop excessive bleeding after cuts or injuries. Makes immune factors and removes bacteria from the blood to fight infection.

What is "hepatitis" and how does it affect my liver?

The medical term "hepatitis" means "inflammation of the liver." Chronic inflammation of the liver may result in liver damage or failure if left untreated. "Hepatitis" can be caused by many different things - drinking too much alcohol, injury, autoimmune disorders, an adverse reaction to a drug, herbal treatment, or supplement, or a virus such as the hepatitis B virus.





Hepatitis B and Your Liver

Your liver is one of your body's most important organs. It cleans toxins from your body and helps you digest food and absorb nutrients. The hepatitis B virus lives in your liver and can cause damage. It is important for people with hepatitis to understand their liver and how to protect it.

What does my liver look like?



How important is my liver?

If your body was an automobile, your liver would be considered the engine. It does hundreds of vital things to make sure everything runs smoothly. Some of the most important functions of the liver include:

- Releases a substance called "bile" to help digest food and absorb nutrients.

The Hepatitis B Foundation is a national nonprofit organization dedicated to finding a cure and improving the quality of the for those affected by hepatits B worldwide. WWW.HEPB.ORG 215-489-4900

Available at: www.hepb.org

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Save the Date!

May 22nd (11am-12pm PDT/ 2-3pm EDT) Part 3: Hidden Consequences: The Opioid Epidemic and Rising Hepatitis B Rates







Thank you for joining!

For more information: <u>www.hepb.org</u> <u>www.hepbunited.org</u>

Hepatitis B help-line (for patient/provider use): 215-489-4900 Info@hepb.org



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