

Perinatal Hepatitis B Prevention Program (PHBPP)

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Mission: To identify hepatitis B surface antigen-positive (HBsAg-positive) women prenatally or at delivery for each pregnancy so that their infants, household and sexual contacts can be tested and treated to prevent the spread of the hepatitis B virus (HBV).

Surveillance: Statewide, an average of 332 HBsAg-positive pregnant women is reported annually. Based on Centers for Disease Control and Prevention (CDC) estimates, 396-597 HBsAg-positive pregnant women should be identified annually.

Prevention: Prevention of perinatal hepatitis B transmission requires the coordinated transfer of information between laboratories, primary care providers, hospitals, and the local/state health departments to ensure that all:

- Pregnant women are screened for HBsAg, all HBsAg-positive results are reported to the local health department (LHD) in the county where the patient resides within 24 hours, and the results are sent to the delivery hospital with the prenatal care record.
- Household and sexual contacts of HBsAg-positive pregnant women are identified, tested and immunized if susceptible.
- Infants of HBsAg-positive women receive appropriate prophylaxis and post-vaccination serology.
- All infants receive the birth dose of hepB vaccine prior to hospital discharge.

To view the manual in its entirety or to obtain additional copies go to www.michigan.gov/hepatitisB.

See the 12/23/05 MMWR: "A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States" for the latest Advisory Committee on Immunization Practices (ACIP) recommendations, at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm>.

Overview: Perinatal Hepatitis B Prevention Program (PHBPP)

If you work in a laboratory:

- Report all hepatitis B surface antigen-positive (HBsAg-positive) results to the local health department (LHD) in the county where the patient resides within 24 hours of discovery
- Report all HBsAg results to the ordering physician

If you provide prenatal care:

- Test every pregnant woman during each pregnancy for HBsAg
- Inform pregnant women of their HBsAg status
- Send copy of HBsAg test result for current pregnancy with prenatal records to delivery hospital
- Report all HBsAg-positive pregnant women to the LHD within 24 hours
- Counsel HBsAg-positive pregnant women about their status and refer for appropriate care
- Contact the pediatric provider to communicate the woman's HBsAg-positive status and the need for hepB vaccination and hepatitis B immune globulin (HBIG) for the infant
- Assess HBsAg-negative pregnant woman's risk for hepatitis B infection
- Counsel HBsAg-negative pregnant woman on methods to prevent hepatitis B transmission
- and vaccinate pregnant HBsAg-negative women if high risk
- Retest high risk pregnant HBsAg-negative women in their last trimester

If you work in the hospital labor and delivery unit or in the nursery unit:

- Review and record the maternal hepatitis B surface antigen (HBsAg) test result for the current pregnancy on both labor and delivery record and on infant's delivery summary sheet
 - If a woman presents with an unknown HBsAg status or with risk factors, test STAT
 - If STAT test is HBsAg-positive, report to the LHD within 24 hours
- Give all infants single-antigen hepB vaccine at birth
- Give all infants born to HBsAg-positive women single-antigen hepB vaccine and HBIG within 12 hours of birth
- Report administration of HBIG and hepB on the electronic birth certificate (EBC) worksheet
- Record the maternal HBsAg testing date and result on all newborn screening (NBS) cards
- Report all HBsAg-positive women and the HBIG and hepB administration to the PHBPP

If you provide pediatric care:

- Know the maternal HBsAg status for all infants to whom you provide care
- Complete the recommended hepB vaccine series and post-vaccination serology for all infants born to HBsAg-positive women
 - If infant is HBsAg and anti-HBs negative, repeat three doses of hepB vaccine and retest one month later
 - If the infant is HBsAg-positive, counsel the family and refer the infant for appropriate care
- Record vaccine administration in the Michigan Care Improvement Registry (MCIR)
- Report hepB administration and post-vaccination serology results to the PHBPP

If you provide health care to a contact of an HBsAg-positive woman:

- Identify, test and treat all household and sexual contacts of women who are HBsAg-positive
- Counsel HBsAg-positive contacts and refer them for appropriate care
- Give susceptible contacts three doses of hepB vaccine and complete post-vaccination serology
- Record vaccine administration in the Michigan Care Improvement Registry (MCIR)
- Report hepB administration and post-vaccination serology results to the PHBPP

Perinatal Hepatitis B Prevention Program (PHBPP) Services

Universal Hepatitis B Vaccination Program:

Hospitals who are enrolled in this program receive free hepatitis B vaccine to give to all infants at birth. This service acts as a “safety net” to prevent both horizontal and vertical transmission.

Hepatitis B vaccine and hepatitis B immune globulin (HBIG):

Infants, household and sexual contacts enrolled in the perinatal program are eligible for free hepatitis B vaccine, HBIG, and testing.

Free Hepatitis B test kits are available for:

- Pregnant women who do not have insurance or Medicaid, for the initial prenatal work-up and for re-testing if high risk
- Infants born to HBsAg-positive women after completion of the hepatitis B vaccine series
- Household and sexual contacts of HBsAg-positive pregnant women

Case management services:

Educational information, support and tracking are provided to ensure hepatitis B vaccine series completion and testing. These services are available to all infants, household and sexual contacts associated with the pregnant HBsAg-positive woman reported to the PHBPP.

Guide to Perinatal Hepatitis B Prevention:

A comprehensive manual is available at www.michigan.gov/hepatitisB with sections specifically designed for:

- Prenatal Care Providers
- Laboratories
- Hospitals
- Local Health Departments
- Family Practice Providers
- Pediatric Care Providers

Educational sessions:

- Perinatal Hepatitis B Prevention with 1.0 contact hours
- Hepatitis A-E with 1.5 contact hours
- Hepatitis A-E and post-exposure prophylaxis with 1.5 contact hours

If you have any questions, or for additional information on how to obtain these services contact the PHBPP staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

Michigan Infant Dies from Perinatal Hepatitis B Virus (HBV) Infection

A three-month-old infant died from acute HBV infection due to an error in reporting. After a review of provider and hospital records, it was determined that the infant's mother was chronically infected with HBV and tested hepatitis B surface antigen-positive (HBsAg-positive) during her pregnancy. Unfortunately, the test results were not reported from the laboratory to the local health department (LHD), and the provider inaccurately reported the mother's results as HBsAg-negative to the delivery hospital.

Since the information from the prenatal care provider indicated that the infant's mother was negative for HBV, the infant did not receive hepB vaccine or hepatitis B immune globulin (HBIG) as recommended for all infants born to HBsAg-positive women. The infant became ill at three months of age and died less than two weeks later due to fulminant HBV infection.

This tragedy illustrates the necessity that all laboratories and ordering physicians comply with Michigan law. It is absolutely critical that every HBsAg-positive result for pregnant women is reported to the LHD and to the delivery hospital.

What Happens to Infants Born to HBsAg-positive Women?

WITHOUT HepB vaccine or HBIG:

- 90% will be at risk for chronic infection
- 25% of those infected will die due to chronic liver disease

WITH HepB vaccine alone in a 3 or 4 dose series started at birth:

- 70% - 95% will be protected from getting HBV infection

WITH HepB vaccine and HBIG started at birth:

- 80% - 95% will be protected from getting HBV infection

Perinatal Hepatitis B Prevention Program

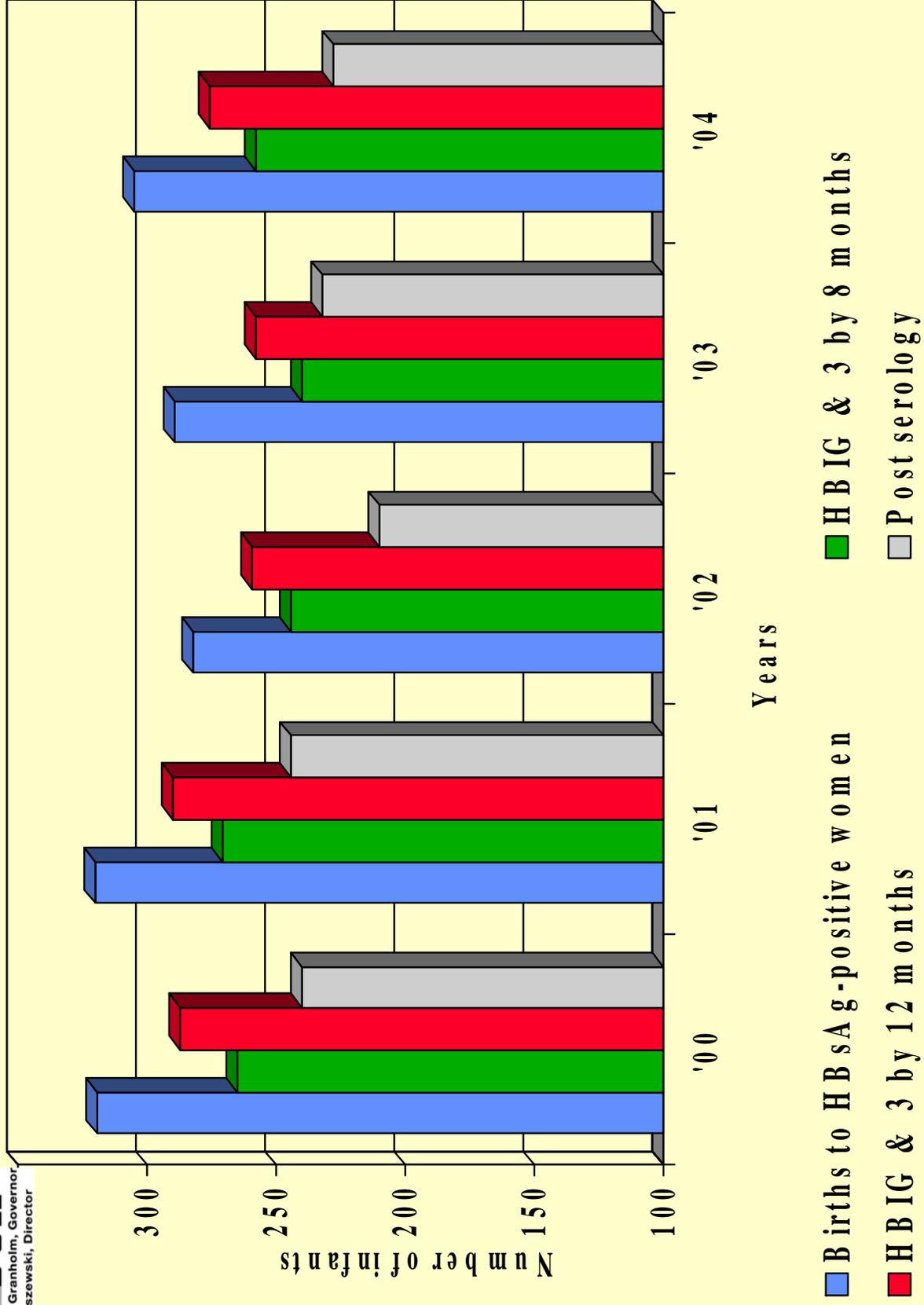


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Overview: What Pediatricians Need to Know

Disease Burden

United States:*

- 20,000 infants born annually to hepatitis B surface antigen-positive (HBsAg-positive) women
- 1,000 infants chronically infected with hepatitis B virus (HBV) annually due to infected mothers not being identified and the infant not receiving appropriate post-exposure prophylaxis
- Chronic HBV infection develops in:
 - 90% of children infected at birth
 - 30%-60% of children infected between 1-5 years of age
 - 2%-6% of children infected at 6 years of age and older

Michigan:

- 396-597 HBsAg-positive pregnant women should be identified annually
- 332 HBsAg-positive pregnant women reported annually
- 31 children (under 18 years of age) reported as HBsAg-positive annually from 1994-2004

Prevention

Prevention of HBV transmission requires the coordinated transfer of information between laboratories, primary care providers, hospitals, and the local/state health departments to ensure:

- Maternal HBsAg status is determined for all pediatric patients
- Household children/adolescent contacts of HBsAg-positive women are identified, tested and immunized if susceptible
- Infants of HBsAg-positive women receive appropriate prophylaxis and post-vaccination serology

* Centers for Disease Control and Prevention (CDC) Guidelines for Viral Hepatitis Surveillance and Case Management, January 2005.

Health Care Provider Responsibilities for Infant(s) Born to Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women

Review the Michigan Care Improvement Registry (MCIR), and/or the Official Immunization Record to determine if the infant received the hepatitis B (hepB) vaccine and the hepatitis B immune globulin (HBIG) at birth.

Give a dose of single-antigen hepB vaccine at 1-2 months of age or Pediarix™ or Comvax® at 2 months of age. (If this infant weighed less than 2000 g at birth, do not count the birth dose of hepB vaccine as part of the series and give three additional doses.) *

If using Pediarix™ or Comvax® a dose can be given at 4 months of age.

Give the last dose of single-antigen or Pediarix™ hepB vaccine at 6 months of age (no sooner than 24 weeks of age), or Comvax® at 12-15 months of age. *

Draw or arrange with the Perinatal Hepatitis B Case Manager to have the infant's blood tested for HBsAg & hepatitis B surface antibody (anti-HBs) at 9-18 months of age, (3 months after the completion of the vaccine series). *

If HBsAg and anti-HBs are both negative, begin 2nd vaccine series using single-antigen hepB vaccine at (0, 1, 6 month schedule) and repeat the blood test 1-2 months after the second hepB vaccine series. *

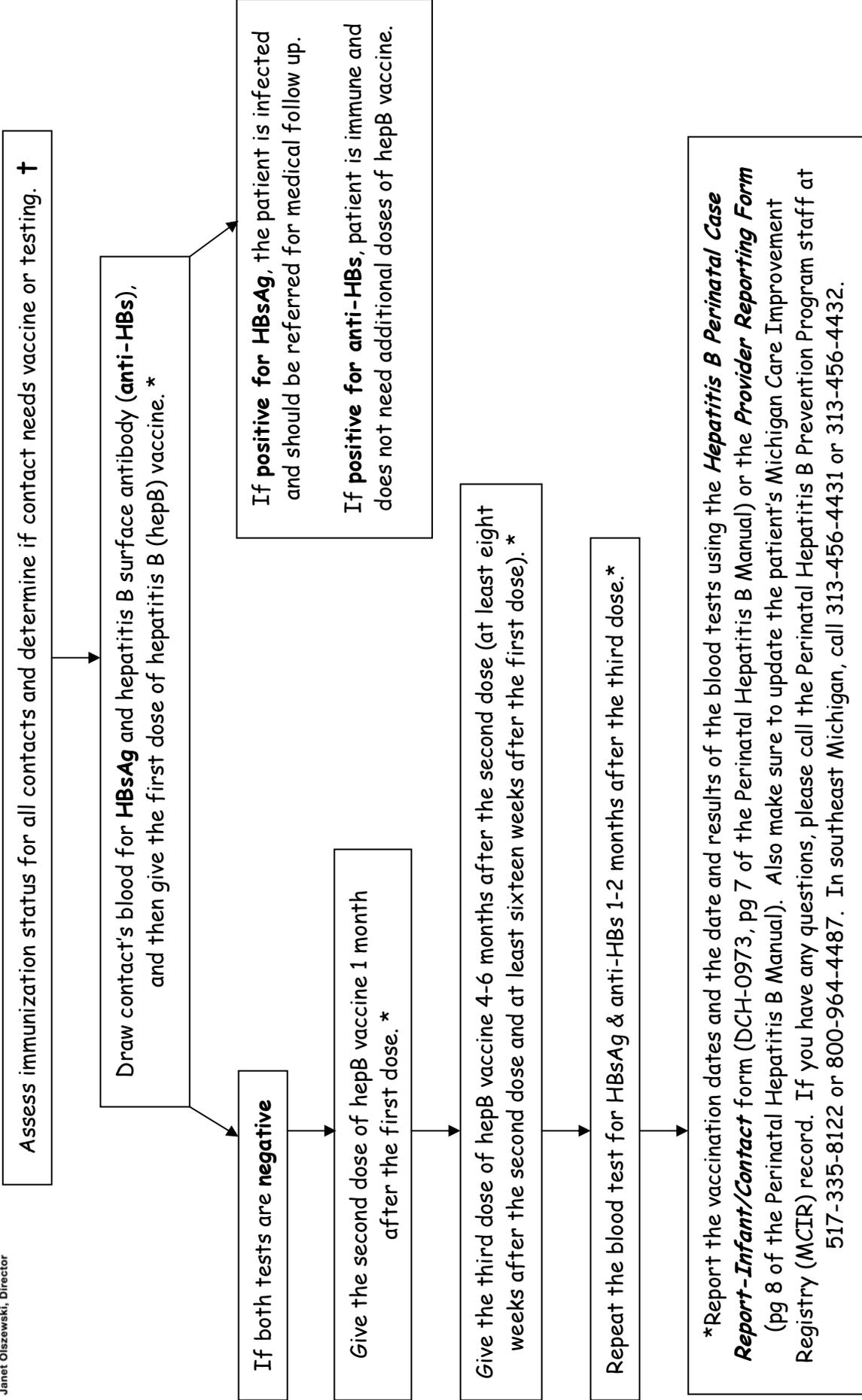
*Report the vaccination dates and the date and results of the blood tests using the *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual) or the *Provider Reporting Form* (pg 8 of the Perinatal Hepatitis B Manual). Also make sure to update the patient's MCIR record. If you have any questions, please call the Perinatal Hepatitis B Prevention Program staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

Follow-up Protocol for Infants Born to Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women

1. Review the Michigan Care Improvement Registry (MCIR), and/or the Official Immunization Record to determine if the infant received the hepatitis B (hepB) vaccine and the hepatitis B immune globulin (HBIG) at birth.
2. **At 1-2 months of age:**
 - A. Give the infant a dose of single-antigen hepB vaccine at 1-2 months of age, or Pediarix™ (DTaP-HepB-IPV) or Comvax® (HepB-Hib) at 2 months of age, intramuscularly in the anterolateral thigh (at least 4 weeks after the first dose).
 - B. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual), or a *Provider Reporting Form* (pg 8 of the Perinatal Hepatitis B Manual) and mail or fax the information to the Perinatal Hepatitis B Prevention Program (PHBPP).
 - C. Flag the infant's chart as a reminder of when the next dose is due, ask the parent for current telephone and address information and update the patient's MCIR record.
3. If using Pediarix™ or Comvax®, a dose of the hepB vaccine can be given at the 4 month-visit intramuscularly in the anterolateral thigh.
 - A. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual), or a *Provider Reporting Form* (pg 8 of the Perinatal Hepatitis B Manual) and mail or fax the information to the PHBPP.
 - B. Flag the infant's chart as a reminder of when the next dose is due, ask the parent for current telephone and address information and update the patient's MCIR record.
4. **At 6 months of age:**
 - A. Give the infant the last dose of single-antigen hepB vaccine or Pediarix™ at 6 months of age, or if using Comvax® give the last dose at 12-15 months of age, intramuscularly in the anterolateral thigh (at least 8 weeks after the second dose, at least 16 weeks after the first, and no earlier than 24 weeks of age).
 - B. Inform the parent that the infant will need a blood test at 9-18 months of age, (3 months after the completion of the hepB vaccine series), to see if the baby has been protected from the hepatitis B virus.
 - C. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual), or a *Provider Reporting Form* (pg 8 of the Perinatal Hepatitis B Manual) and mail or fax the information to the PHBPP.
 - D. Flag the infant's chart as a reminder of when the blood test is due, ask the parent for current telephone and address information, and update the patient's MCIR record.
5. **At nine to eighteen months of age (3 months after the completion of the vaccine series):**
 - A. Draw or refer the infant for **HBsAg** and hepatitis B surface antibody (**anti-HBs**) testing. To make arrangements for free testing contact the PHBPP case manager.
 - B. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual), or a *Provider Reporting Form* (pg 8 of the Perinatal Hepatitis B Manual) and mail or fax the information to the PHBPP.
 - C. Ask the parent for current telephone and address information and update the patient's MCIR record.

If you have questions, or need test kits, please call the PHBPP staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

Health Care Provider Responsibilities for Contacts of Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women



† **PLEASE NOTE:**
If the patient has documentation they have started the series, complete the series and then test 1-2 months later.

Follow-up Protocol for Household and Sexual Contacts

Assess: Immunization status for all contacts through the Michigan Care Improvement Registry (MCIR) to determine if hepatitis B (hepB) vaccine or testing is needed. Those with a partially completed hepB vaccination series should complete the vaccine series and then have follow-up serology 1-2 months later.

Test: Exposed household contacts and sexual partners of women who test positive for hepatitis B surface antigen (HBsAg) prenatally or at delivery to determine their hepatitis B status. The following tests should be completed:

HBsAg: Determines if they are currently infected with the hepatitis B virus (HBV)

Anti-HBs: (Hepatitis B surface antibody) determines if they have protection against HBV

If both tests are **NEGATIVE**, the contact is susceptible to infection and should receive hepB vaccine. If HBsAg is positive, the patient is infected and should be referred for appropriate medical follow up. If anti-HBs is positive, and the contact had three valid doses of hepB vaccine, they are considered immune and are protected from getting HBV.

Vaccinate: All unvaccinated susceptible contacts with three doses of hepB vaccine:

- The first dose should be given at the same visit, but after the blood draw.
- The second dose should be given ONE MONTH after the first dose.
- The third dose should be given FOUR-SIX MONTHS after the first dose (at least eight weeks after the second dose and at least sixteen weeks after the first dose).

If there has been a sexual exposure within the last 14 days to an acutely infected HBsAg-positive woman, or a blood exposure within the last 7 days to an HBsAg-positive woman, the contact should also receive one dose of hepatitis B immune globulin (HBIG*), calculated at 0.06 ml/kg of body weight.

Test: All contacts for HBsAg and anti-HBs one to two months after the third dose of hepB vaccine is administered.

Report: All doses of hepB and HBIG on a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual) or the *Provider Reporting Form* (pg 8 of the Perinatal Hepatitis B Manual) and mail or fax the information to the Perinatal Hepatitis B Prevention Program (PHBPP). Update the patient's MCIR record and ask for current telephone and address information.

For questions or assistance, please call the PHBPP staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

*Suggested intervals between immune globulin preparations and live virus vaccines are 3 months.

Hepatitis B Facts: Testing and Vaccination

— Who should be vaccinated? —

The following persons should receive routine hepatitis B vaccination according to the Centers for Disease Control and Prevention (CDC):

Routine vaccination:

- All newborns at birth prior to hospital discharge
- All children and teens ages 0 through 18 years
- All persons who wish to be protected from hepatitis B virus (HBV) infection. CDC states it is not necessary for the patient to disclose a risk factor in order to receive hepatitis B vaccine.

Persons who are at risk for sexual exposure:

- Sexually active persons who are not in long-term mutually monogamous relationships
- Sex partners of HBsAg-positive persons
- Persons seeking evaluation or treatment for an STD
- Men who have sex with men

Persons at risk for infection by percutaneous or mucosal exposure to blood:

- Current or recent injection-drug users
- Household contacts of HBsAg-positive persons
- Residents and staff of facilities for developmentally challenged persons
- Healthcare and public safety workers with reasonably anticipated risk for exposure to blood or blood-contaminated body fluids
- Persons with end-stage renal disease and those receiving dialysis.

Others:

- Travelers to areas with moderate or high rates of HBV infection
- Persons with chronic (life-long) liver disease
- Persons with HIV infection

All refugees, immigrants, and adoptees from countries with moderate or high rates of HBV infection should be screened. Adults should discuss their need or desire for hepatitis B vaccination with their healthcare providers.

— Hepatitis B lab nomenclature —

HBsAg: *Hepatitis B surface antigen* is a marker of infectivity. Its presence indicates either acute or chronic HBV infection.

anti-HBs: *Antibody to hepatitis B surface antigen* is a marker of immunity. Its presence indicates an immune response to HBV infection, an immune response to vaccination, or the presence of passively acquired antibody. (It is also known as **HBsAb**, but this abbreviation is best avoided since it is often confused with abbreviations such as HBsAg.)

anti-HBc (total): *Antibody to hepatitis B core antigen* is a nonspecific marker of acute, chronic, or resolved HBV infection. It is *not* a marker of vaccine-induced immunity. It may be used in prevaccination testing to determine previous exposure to HBV infection. (It is also known as **HBcAb**, but this abbreviation is best avoided since it is often confused with other abbreviations.)

IgM anti-HBc: *IgM antibody subclass of anti-HBc*. Positivity indicates recent infection with HBV (within the past 6 mos). Its presence indicates acute infection.

HBeAg: *Hepatitis B “e” antigen* is a marker of a high degree of HBV infectivity, and it correlates with a high level of HBV replication. It is primarily used to help determine the clinical management of patients with chronic HBV infection.

Anti-HBe: *Antibody to hepatitis B “e” antigen* may be present in an infected or immune person. In persons with chronic HBV infection, its presence suggests a low viral titer and a low degree of infectivity.

HBV-DNA: *HBV Deoxyribonucleic acid* is a marker of viral replication. It correlates well with infectivity. It is used to assess and monitor the treatment of patients with chronic HBV infection.

— Screening before vaccination —

Serologic testing prior to vaccination may be undertaken based on your assessment of your patient’s level of risk and your or your patient’s need for definitive information (see information in the left column). If you decide to test, draw the blood first, and then give the first dose of vaccine at the same office visit. Vaccination can then be continued, if needed, based on the results of the tests. If you are not sure who needs hepatitis B screening, consult your state or local health department.

Tests	Results	Interpretation	Vaccinate?
HBsAg anti-HBc anti-HBs	negative negative negative	susceptible	vaccinate if indicated
HBsAg anti-HBc anti-HBs	negative negative positive with $\geq 10\text{mIU/mL}^*$	immune due to vaccination	no vaccination necessary
HBsAg anti-HBc anti-HBs	negative positive positive	immune due to natural infection	no vaccination necessary
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	acutely infected	no vaccination necessary
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	chronically infected	no vaccination necessary (may need treatment)
HBsAg anti-HBc anti-HBs	negative positive negative	four interpretations possible [†]	use clinical judgment

*Postvaccination testing, when it is recommended, should be performed 1–2 months after the last dose of vaccine. Infants born to HBsAg-positive mothers should be tested 3–9 months after the last dose of vaccine.

- [†]1. May be recovering from acute HBV infection
 2. May be distantly immune, but the test may not be sensitive enough to detect a very low level of anti-HBs in serum
 3. May be susceptible with a false positive anti-HBc
 4. May be chronically infected and have an undetectable level of HBsAg present in the serum

— Managing chronic HBV infection —

When you identify a patient who is chronically infected with HBV, make sure you consult a specialist knowledgeable in the treatment of liver disease so your patient’s care is optimized. Chronically infected persons need medical evaluation every 6–12 months to assess the status of their liver health and their need for antiviral therapy, as well as to screen for liver cancer. Persons with HBV infection should also be educated about their disease and how to protect others.

Household members and sex partners should be tested for HBV infection and given the first dose of hepatitis B vaccine at the same visit. (Vaccinating a person who has already been infected will do no harm). If testing indicates HBV susceptibility, complete the hepatitis B vaccination series. If testing indicates HBV infection, consultation and further care with a physician knowledgeable about chronic hepatitis B is needed.



Hepatitis B Perinatal Case Report - Infant/Contact

Michigan Department of Community Health (MDCH)

Please complete this form each time a dose of hepatitis B vaccine and/or hepatitis B immune globulin (HBIG) is administered to an infant whose mother has tested hepatitis B surface antigen (HBsAg) positive or when given to her household or sexual contacts. Mail this form to MDCH, Immunization Division, P.O. Box 30195, Lansing, MI 48909, fax to 517-335-9855, or call the Perinatal Hepatitis B Prevention staff at 517-335-8122 or 800-964-4487. In southeast Michigan, mail to MDCH, Detroit Regional Office, 3056 West Grand Boulevard, Suite 3-150, Detroit, MI 48202, fax to 313-456-4427 or call 313-456-4431 or 313-456-4432. Also, please make sure to update the infant/contact's Michigan Care Improvement Registry (MCIR) record.

PROVIDER						
Hospital or Provider Name					County	
Address						
City			Zip Code		Telephone No.	
HBsAg POSITIVE MOTHER						
Mother's Name			DOB		Grav	Para
Address						
City			Zip Code		County of Residence	
Social Security No.			Telephone No.		Emergency/Work No.	
HBsAg-positive Test Result Date				Mom's Medical Record No. (if infant)		
INFANT OR HOUSEHOLD/SEXUAL CONTACT						
Name				DOB		Sex <input type="checkbox"/> Male <input type="checkbox"/> Female
Race/Ethnicity <input type="checkbox"/> Alaskan Native <input type="checkbox"/> American <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Caucasian <input type="checkbox"/> Hispanic <input type="checkbox"/> Unknown <input type="checkbox"/> Other <input type="checkbox"/> Non Hispanic						
Birth Weight (If infant)				Medical Record No (If infant)		
VACCINE/LAB RESULTS OF INFANT OR CONTACT						
Vaccine	Date Given	Lot #	Manufacturer	Dosage	Lab Results	Date of Test
HBIG					HBsAg	
Hep B #1					Anti-HBs	
Hep B #2					Other	
Hep B #3						
FOLLOW-UP CARE PROVIDER OF INFANT OR CONTACT (If different from above)						
Facility Name				Provider's Name		
Address				City		Zip Code
Telephone No.				County		
Name of person completing					Telephone	

Patients may NOT be charged for cost of vaccines provided through project grant funds whether administered in public clinics or by private physicians. Vaccine may NOT BE DENIED in public clinics for failure to pay an administration fee or to make a donation to the provider.

DCH-0973 AUTHORITY: PA 368 of 1978

PROVIDER REPORTING FORM

Please complete this form each time a dose of hepatitis B vaccine is administered to an infant whose mother has tested hepatitis B surface antigen-positive (HBsAg-positive), or to her household or sexual contacts. Please mail this form to MDCH, Detroit Regional Office, 3056 West Grand Boulevard, Suite 3-150, Detroit, MI 48202, fax it to 313-456-4427 or call the Perinatal Hepatitis B Prevention Program (PHBPP) with the information to 313-456-4432. Also, please update the child's Michigan Care Improvement Registry (MCIR) record.

_____ was post-vaccination tested.

Date: _____

PLEASE RETURN WITH A COPY OF THE LABORATORY RESULTS

(Circle test results)

HBsAg: **Positive*** **Negative**

* A positive test indicates infection with hepatitis B.
Desired result is negative.

Anti-HBs: **Positive*** **Negative**

* A positive test indicates protection against hepatitis B.
Desired result is positive.

---Tear off-----

_____ received his/her **third** dose of hepatitis B vaccine.

Date: _____

Recombivax HB ____ Engerix-B ____ Comvax ____ Pediarix ____

Doctor's name or stamp: _____

---Tear off-----

_____ received his/her **second** dose of hepatitis B vaccine.

Date: _____

Recombivax HB ____ Engerix-B ____ Comvax ____ Pediarix ____

Doctor's name or stamp: _____

REPORTABLE DISEASES IN MICHIGAN

A Guide for Physicians, Health Care Providers and Laboratories

The following is a list of conditions that should be reported to the local health department without delay if the agent is identified by clinical diagnosis, direct examination, culture, serology, molecular techniques or by histopathology.

Acquired Immunodeficiency Syndrome (AIDS)	Influenza virus (Weekly aggregate counts)
Avian influenza	Kawasaki Disease
Bacillus anthracis (Anthrax)	Leptospira species
Blastomyces dermatitidis	Legionella species
Bordetella pertussis (Pertussis)	Listeria monocytogenes
Borrelia burgdorferi (Lyme Disease)	Meningitis, viral
Brucella species	Meningitis, bacterial
Burkholderia pseudomallei	Measles virus (Rubeola)
Burkholderia mallei	Mumps virus
Calymmatobacterium granulomatis	Mycobacterium bovis
Campylobacter jejuni	Mycobacterium leprae (Leprosy)
Chlamydia psittaci (Psittacosis)	Mycobacterium tuberculosis (Tuberculosis)
Chlamydia trachomatis (Genital infections), (LGV)	Neisseria gonorrhoeae (Gonorrhea)
Chlamydia trachomatis (Trachoma)	Neisseria meningitidis, sterile sites (Meningococcal Disease)
Clostridium botulinum (Botulism)	Orthopox viruses (Smallpox, Monkeypox)
Clostridium tetani (Tetanus)	Poliovirus
Coccidioides immitis (Coccidioidomycosis)	Plasmodium species (Malaria)
Corynebacterium diphtheriae (Diphtheria)	Rabies virus
Coxiella burnetii (Q Fever)	Reye's Syndrome
Cryptococcus neoformans	Rheumatic fever
Cryptosporidium species	Rickettsia rickettsii (Rocky Mountain Spotted Fever)
Cyclospora species	Rickettsia species (Typhus Group)
Dengue virus	Rubella virus
Ehrlichia species	Salmonella species
Encephalitis, viral	Salmonella Typhi (Typhoid Fever)
California serogroup	Severe Acute Respiratory Syndrome (SARS)
Eastern Equine	Shigella species
Powassan	Spongiform Encephalopathy (Includes CJD)
St. Louis	Staphylococcus aureus, vancomycin intermediate/resistant (VISA/VRSA)
Western Equine	Staphylococcus aureus, (MRSA), outbreaks only
West Nile	Streptococcus pyogenes, group A, sterile sites
Unspecified	Streptococcus pneumoniae, sterile sites, susceptible/resistant
Entamoeba histolytica (Amebiasis)	Toxic Shock Syndrome
Escherichia coli, O157:H7 and all other shiga toxin positive serotypes	Treponema pallidum (Syphilis)
Francisella tularensis (Tularemia)	Trichinella spiralis (Trichinosis)
Giardia lamblia	Varicella (Chickenpox)
Guillain-Barre Syndrome	Vibrio cholerae (Cholera)
Haemophilus ducreyi (Chancroid)	Yellow fever virus
Haemophilus influenzae, <15 years of age, sterile site	Yersinia enterocolitica
Hantavirus	Yersinia pestis (Plague)
Hemolytic Uremic Syndrome (HUS)	
Hemorrhagic fever viruses	
Hepatitis, viral	
Hepatitis A virus, (Anti-HAV IgM)	
Hepatitis B virus, (HBsAg)	
within 24 hours on pregnant women	
Hepatitis C virus, (Anti-HCV)	
Hepatitis, non-ABC	
Histoplasma capsulatum	
HIV, (Confirmed positive HIV serology and detection tests; CD4 counts/percents and all viral loads on people already known to be infected)	

LEGEND

Green Bold Text = An isolate or serum sample, where appropriate, is to be submitted to MDCH laboratory.

Report All Listed Conditions to the Local Health Department (see reverse)
This reporting is expressly allowed under HIPAA Communicable Disease Rules: R 325.171, 172, 173

DIRECTORY OF MICHIGAN HEALTH DEPARTMENTS BY COUNTY

Please check your phone directory to see if there is a branch office in your community if the number listed is long distance. Write that number here: _____

In general, health care providers should seek consultation regarding communicable disease prevention and control services through their local health department.

COUNTY	HEALTH DEPT.	COUNTY OFFICE	AREA	PHONE	FAX	COUNTY	HEALTH DEPT.	COUNTY OFFICE	AREA	PHONE	FAX
Alcona	District 2	Harrisville	989	724-6757	724-9975	Lapeer	Lapeer Co	Lapeer	810	245-5827	667-0232
Alger	LMAS DHD	Munising	906	387-2297	387-2224	Leelanau	Benzie-Leelanau	Lk Leelanau	231	256-0210	256-7399
Allegan	Allegan County	Allegan	269	673-5411	673-2163	Leelanau	Leelanau County	Adrian	517	264-5234	264-0790
Alpena	District 4	Alpena	989	356-4507	354-0855	Livingston	Livingston County	Howell	517	546-9850	545-9685
Antrim	NW MI Com Health	Bellaire	231	533-8670	547-0460	Luce	LMAS DHD	Newberry	906	293-5107	293-5453
Arenac	Cent MI DHD	Standish	989	846-6541	846-0431	Mackinac	LMAS DHD	St. Ignace	906	643-1100x14	643-7719
Baraga	Western UP Dist	Hancock	906	524-6142	524-6144	Macomb	Macomb County	Mt. Clemens	586	783-8190	493-0075
Barry	Barry-Eaton DHD	Hastings	269	945-9516x114	945-2413	Manistee	District #10	Manistee	231	723-3595	723-1477
Bay	Bay County	Bay City	989	895-4003	895-2083	Marquette	Marquette County	Negaunee	906	475-7844x23	475-4435
Benzie	Benzie-Leelanau DHD	Benzonia	231	256-0210	882-0143	Mason	District #10	Ludington	231	845-7381	845-9374
Berrien	Berrien County	Benton Harbor	269	927-5627	926-8129	Mecosta	District #10	Big Rapids	231	592-0130	592-9464
Branch	Branch/Hills/St Jo	Coldwater	517	279-9561	278-2923	Menominee	Delta/Men Dist	Menominee	906	863-4451	863-7142
Calhoun	Calhoun County	Battle Creek	269	969-6334	969-6488	Midland	Midland County	Midland	989	832-6666	837-6524
Cass	VanBuren-Cass DHD	Cassopolis	269	445-5280	445-5278	Missaukee	District #10	Lake City	231	839-7167	839-7908
Charlevoix	NW MI Community	Charlevoix	231	547-6523	547-0460	Monroe	Monroe County	Monroe	734	240-7832	240-7906
Chippewagon	District 4	Cheboygan	231	627-8850	627-9466	Montcalm	Mid-Mich DHD	Stanton	989	831-3615	831-3666
Chippewa	Chippewa County	Sault Ste. Marie	906	635-3577	635-7081	Montmorency	District 4	Atlanta	989	785-4428	785-2217
Clare	Cent MI DHD	Harrison	989	539-6731	539-4449	Muskegon	Muskegon Co	Muskegon	231	724-4421	724-1325
Clinton	Mid-Mich DHD	St. Johns	989	227-3111	227-3126	Newaygo	District 10	White Cloud	231	689-7300	689-5295
Crawford	District 10	Grayling	989	348-7800	348-5346	Oakland	Oakland County	Pontiac	248	858-1286	858-0178
Delta	Delta-Men Dist	Escanaba	906	786-4111	786-7004	Oceana	District 10	Hart	231	873-2193	873-4248
Dickinson	Dick-Iron Dist	Iron River	906	774-1868	265-4174	Ogemaw	District 2	West Branch	989	345-5020	345-1996
Eaton	Barry-Eaton DHD	Charlotfe	517	541-2641	541-2666	Ontonagon	Western UP Dist	Ontonagon	906	884-4096	884-2358
Emmet	NW MI Community	Petoskey	231	347-6014	547-0460	Oscoda	District 2	Mio	231	832-5532	832-1020
Genesee	Genesee County	Flint	810	257-1017	257-3247	Otsego	NW MI Dist	Gaylord	989	732-1794	231-547-0460
Gladwin	Cent MI DHD	Gladwin	989	426-9431	426-6952	Ottawa	Ottawa County	Holland	616	396-5266	393-5659
Gogebic	Western UP Dist	Bessemer	906	667-0200	667-0020	Pres. Isle	District 4	Rogers City	989	734-4723	734-3866
Gd Trav.	Grand Traverse Co.	Traverse City	231	922-2718	922-2719	Roscommon	Cent MI Dist	Prudenville	989	366-9166	366-8921
Gratiot	Mid-Mich DHD	Ithaca	989	875-1019	875-1032	Saginaw	Saginaw Co	Saginaw	989	758-3887	758-3888
Hillsdale	Branch/Hills/St Jo	Hillsdale	517	437-7395x200	437-0166	St. Clair	St. Clair Co	Port Huron	810	987-5729	985-4340
Houghton	Western UP DHD	Hancock	906	482-7382	482-9410	St. Joseph	Branch/Hills/St Jo	Three Rivers	269	273-2161x200	273-2452
Huron	Huron Co	Bad Axe	989	269-9721	269-4181	St. Joseph	Branch/Hills/St Jo	Sturgis	269	659-4013x200	651-6090
Ingham	Ingham Co	Lansing	517	887-4308	887-4379	Schoolcraft	LMAS DHD	Sandusky	810	648-4098	648-5806
Ionia	Ionia Co	Ionia	616	527-5339	527-8208	Shiawassee	Shiawassee Co	Corunna	989	743-2356	743-2362
Iosco	District 2	Tawas City	989	362-6183	362-7181	Tuscola	Tuscola Co	Caro	989	673-8114	673-7490
Iron	Dick-Iron DHD	Stambaugh	906	265-9913	265-4174	Van Buren	VanBur-Cass DHD	Hartford	269	621-3143	621-2725
Isabella	Cent MI DHD	Mt. Pleasant	989	773-5921	773-4319	Washtenaw	Washtenaw Co	Ypsilanti	734	544-6770	544-6706
Jackson	Jackson Co	Jackson	517	768-1664	788-4256	Wayne (out-Wayne)	Wayne Co	Wayne	734	727-7078	727-7083
Kalamazoo	Kalamazoo Co	Kalamazoo	269	373-5267	373-5060	Western UP DHD	Detroit City	Detroit	313	876-4138	876-0070
Kalkaska	District 10	Kalkaska	231	258-8669	258-2805	Wexford	District 10	Cadillac	231	775-9942	775-4127
Kent	Kent Co	Grand Rapids	616	632-7228	632-7085						
Keweenaw	Western UP DHD	Hancock	906	482-7382	482-9410						
Lake	District 10	Baldwin	231	745-4663	745-2501						

Give the birth dose . . .

Hepatitis B vaccine at birth saves lives!

By **Deborah L. Wexler, MD**, Executive Director, Immunization Action Coalition

On Dec. 23, 2005, CDC issued new recommendations on hepatitis B vaccination that were published in the MMWR. The recommendations strongly support the birth dose of hepatitis B vaccine for every newborn prior to hospital discharge and also recommend the use of standing orders for giving the birth dose. Copies of original maternal hepatitis B lab reports are also recommended (instead of transcribed test results). According to the new recommendations, the birth dose should only be withheld in "rare circumstances," and if doing so, physicians should write an order **not** to give the dose, and a copy of the mother's original HBsAg-negative lab report must be on the infant's chart. The American Academy of Pediatrics, American Academy of Family Physicians, and American College of Obstetricians and Gynecologists endorse these new recommendations.

The Immunization Action Coalition (IAC) urges all health professionals and hospitals to protect all infants from hepatitis B virus (HBV) infection by administering the first dose of hepatitis B vaccine to every infant at birth and no later than hospital discharge.

Approximately 19,000 women with chronic hepatitis B virus infection give birth in the U.S. each year. Up to 95% of perinatal infections can be prevented by postexposure prophylaxis given within 12 hours of birth. Tragically, many babies are exposed to HBV at birth but do not receive appropriate postexposure prophylaxis.

The primary advantage of giving the first dose at birth is that IT SAVES LIVES.

Why is such a policy necessary? Following are some of the ways infants who are not vaccinated at birth can become infected:

- The pregnant woman is tested and found to be hepatitis B surface antigen (HBsAg) positive, but her status is not communicated to the newborn nursery. The infant receives neither hepatitis B vaccine nor HBIG protection at birth.
- A chronically infected pregnant woman is tested with the wrong test. For example, antibody to hepatitis B surface antigen is sometimes ordered in error instead of HBsAg. This can happen because some laboratories use the improper and confusing abbreviation HBsAb instead of anti-HBs. This misordering of a test is relatively common since the two abbreviations (HBsAg and HBsAb) differ by only one letter. However, when her incorrectly ordered test comes back "negative," the woman may have actually been HBsAg positive and her infant would not receive appropriate postexposure prophylaxis.
- The pregnant woman is HBsAg positive, but her test results are misinterpreted or mistranscribed into her prenatal record or her infant's chart. Her infant does not receive HBIG or hepatitis B vaccine.
- The pregnant woman is not tested for HBsAg ei-

ther prenatally or in the hospital at the time of delivery. Women in this group have a higher likelihood of being HBsAg-positive (in one study, women who didn't receive prenatal care were 8 times more likely to be HBsAg positive than women who received such care). Her infant does not receive hepatitis B vaccine in the hospital, even though it is recommended within 12 hours of birth for infants whose mothers' test results are unknown.

- The woman is tested in early pregnancy for HBsAg and is found to be negative. She develops HBV infection later in pregnancy, but it is not detected, even though it is recommended by CDC that high-risk women be retested later in pregnancy. Because the infection is not clinically detected by her health care provider, her infant does not receive hepatitis B vaccine or HBIG at birth.
- The mother is HBsAg negative, but the infant is exposed to HBV postnatally from another family member or caregiver. This occurs in two-thirds of the cases of childhood transmission.

While there are certain advantages to giving the first dose at a later well-baby visit, these are advantages of administrative convenience. The primary advantage of giving the first dose at birth is that it saves lives.

In 2001 and 2002, IAC surveyed hepatitis coordinators at every state health department as well as at city and county CDC projects to express their views about providing hepatitis B vaccine in the hospital. Their responses contained many examples of children who were unprotected or inadequately protected because health professionals failed to order or misordered the hepatitis B blood test or misinterpreted, mistranscribed, or miscommunicated the test results of the children's mothers.

These state coordinators' reports tell us that no matter how well healthcare providers think they are doing with HBsAg screening of all pregnant women, serious mistakes continue to occur; children are unnecessarily being exposed without the benefit of postexposure prophylaxis, and at least

To obtain the CDC recommendations (12/23/05) for hepatitis B immunization of infants, children, and adolescents, go to: www.cdc.gov/mmwr/pdf/rr/rr5416.pdf.

For more information on the importance of giving the birth dose, and results from IAC's survey of state hepatitis B coordinators, go to: www.immunize.org/birthdose.

one baby has died. In order to overcome these failures, all 50 state hepatitis B coordinators overwhelmingly endorse providing a birth dose.

To maximally protect every newborn, ACIP recommends we vaccinate *all* infants (regardless of the mother's HBsAg status) prior to hospital discharge with Engerix-B[®] or Recombivax HB[®]. Providers who wish to complete the series using hepatitis B-containing combination vaccines (Comvax[®], Pediarix[®]), may do so by giving three additional doses. Giving a total of four doses of hepatitis B vaccine to infants is acceptable to CDC, AAP, AAFP, and these vaccine doses are covered under the Vaccines for Children (VFC) program.

All 50 state hepatitis B coordinators overwhelmingly endorse providing a birth dose.

Hepatitis B vaccine is a highly effective vaccine. Studies have shown that infants of the most highly infectious mothers (women who are both HBsAg and HBeAg positive) who receive postexposure prophylaxis with hepatitis B vaccine alone (without HBIG) at birth are protected in up to 95% of cases, essentially the same level of protection afforded by administering hepatitis B vaccine in addition to HBIG. Even higher rates of protection with postexposure prophylaxis have been demonstrated in infants born to less infectious mothers (those who are HBsAg positive and HBeAg negative).

Please read the hepatitis coordinators' survey results (see the web address box above), including descriptions of their experiences with failures of the current system—failures that largely will be prevented by administering hepatitis B vaccine to infants before they go home from the hospital.

Your support for providing a birth dose of hepatitis B vaccine to infants while still in the hospital will protect and save lives that are now being put at risk. ♦

www.immunize.org/catg.d/p2125.pdf • Item #P2125 (5/06)

Eligibility and Ordering Protocol: Hepatitis B Vaccine and Hepatitis B Immune Globulin for Infants and Contacts of Hepatitis B Surface Antigen-Positive Women

Summary:

Hepatitis B (hepB) vaccine and hepatitis B immune globulin (HBIG) are available on an as-needed basis for administration in private provider offices, hospitals, local health departments, health centers, and clinics for the care of those clients currently enrolled in the Perinatal Hepatitis B Prevention Program (PHBPP).

Eligibility for those currently enrolled in the PHBPP:

HepB vaccine and HBIG:

- Infants born to hepatitis B surface antigen-positive (HBsAg-positive) women

HepB vaccine:

- Susceptible household and sexual contacts of HBsAg-positive women

HBIG*:

- Susceptible household and sexual contacts of HBsAg-positive women should receive HBIG within 7 days of an identifiable blood exposure.
- Susceptible sexual contacts of acutely HBsAg-positive women should receive HBIG within 14 days of a sexual exposure.

Infants born to HBsAg-positive women should receive 3 doses of single-antigen hepB vaccine at 0, 1-2 and 6 months of age. If using hepB-containing combination vaccines, give a single-antigen dose of hepB vaccine within 12 hours of birth and complete the series with doses at 2, 4 and 6 months of age if using Pediarix™; or with doses at 2, 4, & 12-15 months of age if using Comvax®. Post-vaccination serology should be done at 9-18 months of age (3 months after the completion of the hepB vaccine series). Susceptible household and sexual contacts of HBsAg-positive women should receive 3 doses of hepB vaccine on a schedule of 0, 1 and 4-6 months with post-vaccination serology 1-2 months after the completion of the vaccine series.

HepB Vaccine/HBIG Orders:

All private providers, hospitals, health centers, and clinics may order hepB vaccine from their local health department (LHD). The LHD can place orders through the Michigan Department of Community Health (MDCH) Biologic Distribution office either by faxing a request to 517-335-9039 or by calling 517-335-9040. Requests for HBIG should be forwarded to the PHBPP.

Private Providers, Hospitals, Health Centers, and Clinics:

Whenever hepB vaccine and/or HBIG are administered to eligible infants or contacts in the PHBPP a **Hepatitis B Perinatal Case Report-Infant/Contact Form** (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual), or a **Provider Reporting Form** (pg 8 of the Perinatal Hepatitis B Manual) should be completed and forwarded to the PHBPP Case Manager. Private providers, hospitals, health centers, and clinics should account for the hepB vaccine they have administered on the *VFC Programs Vaccine Doses Administered Reporting Form*. These forms should be submitted to the LHD.

Local Health Departments:

Whenever hepB vaccine and/or HBIG are administered by a LHD to eligible infants or contacts in the PHBPP a **Hepatitis B Perinatal Case Report-Infant/Contact Form** (DCH-0973, pg 7 of the Perinatal Hepatitis B Manual), or a **Provider Reporting Form** (pg 8 of the Perinatal Hepatitis B Manual) should be completed and forwarded to the PHBPP Case Manager. LHDs should account for the hepB vaccine they have administered on the *VFC Programs Vaccine Doses Administered Reporting Form*. The LHDs should also account for hepB vaccine and HBIG on the *Local Health Department Monthly Vaccine Inventory Report*. The Michigan Care Improvement Registry (MCIR) or other software packages may be used to produce similar reports. These forms should be mailed monthly to the MDCH Division of Immunization or faxed to 517-335-9855.

For additional information, please call the PHBPP program staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

*Suggested intervals between immune globulin preparations and live virus vaccines are 3 months.

Hepatitis B Vaccine and Hepatitis B Immune Globulin Administration for Infants

Maternal Status	Infants greater than or equal to 2000 g*	Infants less than 2000 g*
<p>Hepatitis B Surface Antigen (HBsAg) positive</p>	<p>Give single-antigen hepatitis B (hepB) vaccine and hepatitis B immune globulin (HBIG) within 12 hours of birth.</p> <p>Complete the hepB vaccine series with single-antigen doses at 1-2 and 6 months of age or hepB-containing combination vaccines given at 2, 4, and 6 months of age, or 2, 4, and 12-15 months of age depending on the combination product used. (Combination vaccines cannot be given before 6 weeks of age.)</p> <p>Test for hepatitis B surface antibody (anti-HBs) and HBsAg at 9-18 months of age (3 months after the completion of the hepB vaccine series).</p> <p>If the infant is HBsAg and anti-HBs negative, repeat the 3 dose hepB vaccine series and retest 1-2 months after the completion of the second vaccine series.</p> <p>If infant is HBsAg-positive, refer to a specialist.</p>	<p>Give single-antigen hepB vaccine and HBIG within 12 hours of birth.</p> <p>Do not count the hepB birth dose as the first dose. Initiate the full hepB vaccine series with single-antigen doses at 1, 2-3 and 6 months of age or hepB-containing combination vaccines given at 2, 4, and 6 months of age, or 2, 4, and 12-15 months of age depending on the combination product used. (Combination vaccines cannot be given before 6 weeks of age.)</p> <p>Test for anti-HBs and HBsAg at 9-18 months of age (3 months after the completion of the hepB vaccine series).</p> <p>If infant is HBsAg and anti-HBs negative, repeat the 3 dose hepB vaccine series and retest 1-2 months after the completion of the second vaccine series.</p> <p>If infant is HBsAg-positive, refer to a specialist.</p> <p>Test mother STAT for HBsAg.</p>
<p>HBsAg status unknown</p>	<p>Test mother STAT for HBsAg.</p> <p>Give single-antigen hepB vaccine within 12 hours of birth and HBIG within 7 days if mom's status remains unknown or sooner if found to be HBsAg-positive.</p> <p>Follow the recommended vaccination schedule.</p>	<p>Give single-antigen hepB vaccine and HBIG within 12 hours of birth if mom's status remains unknown or if found to be HBsAg-positive.</p> <p>Follow the recommended vaccination schedule.</p>
<p>HBsAg-negative</p>	<p>Give single-antigen hepB vaccine at birth or prior to hospital discharge.</p> <p>Follow the recommended vaccination schedule.</p> <p>Anti-HBs and HBsAg testing is not recommended.</p>	<p>Follow the recommended vaccination schedule.</p> <p>Give single-antigen hepB vaccine to medically stable infants at 30 days of chronologic age or at hospital discharge if before 30 days of chronologic age.</p> <p>Follow the recommended vaccination schedule.</p> <p>Anti-HBs and HBsAg testing is not recommended.</p>

* All doses of hepB vaccine and HBIG must be entered into the Michigan Care Improvement Registry (MCIR). This may be done by entering the data directly into the MCIR or on the Electronic Birth Certificate (EBC). It is important that all providers who see the baby in a neonatal intensive care unit (NICU) or in an office enter the dose information into MCIR so that a follow-up provider knows when to give the next dose.

• Adapted from: Saari TN and the Committee on Infectious Diseases, Immunization of Preterm and Low Birth Weight Infants. *Pediatrics* 2003; 112:193-198.

Recommended Dosages of Hepatitis B Vaccine and Hepatitis B Immune Globulin

Hepatitis B Vaccine Recipient	Engerix-B® (GlaxoSmithKline)		Recombivax HB® (Merck)	
	Pediatric Formulation Blue Cap 10mcg (0.5mL) (or in prefilled syringes)	Adult Formulation Orange Cap 20mcg (1mL)	Pediatric/Adolescent Formulation Yellow Cap 5mcg (0.5mL)	Adult Formulation Green Cap 10mcg (1mL)
Newborns born to HBsAg (+) mothers*	10mcg (0.5mL) ¹ & (0.5mL) HBIG within 12 hours of birth		5mcg (0.5mL) ¹ & (0.5mL) HBIG within 12 hours of birth	
Newborns born to mothers whose HBsAg status is unknown*	10mcg (0.5mL) ¹ within 12 hours of birth; HBIG should also be given within 7 days if mom's status remains unknown or sooner if found to be HBsAg (+)		5mcg (0.5mL) ¹ within 12 hours of birth; HBIG should also be given within 7 days if mom's status remains unknown or sooner if found to be HBsAg (+)	
Newborns born to HBsAg (-) mothers* and children up to 10 years of age	10mcg (0.5mL) ^{1/3}		5mcg (0.5mL) ^{1/2}	
11-19 years ⁴	10mcg (0.5mL)		5mcg (0.5mL)	
20 + years ⁴		20mcg (1mL)		10mcg (1mL)
Dialysis patients		40mcg (2mL) ⁵		Blue Cap 40mcg (1mL) ⁶

*For newborns weighing less than 2000 g, see (Hepatitis B Vaccine and Hepatitis B Immune Globulin Administration for Infants pg 12 of the Perinatal Hepatitis B Manual)

¹Hepatitis B vaccine is strongly recommended at birth. This birth dose MUST be a single antigen vaccine. A 4-dose hepatitis B series is approved in conjunction with Pediarix® or Comvax®, Merck's Comvax® (hepatitis B and Hib) is a combination vaccine that may be used as an alternative to single antigens for administration to any child 6 weeks of age and older at 2, 4 and 12-15 months of age when neither antigen is contraindicated. This combination vaccine is NOT to be given at birth.

³GlaxoSmithKline's Pediarix® (DTaP, hepatitis B and IPV) is a combination vaccine that may be used as an alternative to single antigens for administration at 2, 4 and 6 months of age. This combination vaccine is NOT to be given at birth. It may be given to any child between the ages of 6 weeks to 7 years of age for whom none of the antigens are contraindicated, and only as a primary series. (The primary series is considered the first three doses of DTaP and IPV vaccines.)

⁴HBIG (hepatitis B immune globulin) All susceptible contacts of an HBsAg (+) person, should receive a (0.06 mL/kg) dose of HBIG, within 7 days of a blood exposure, or within 14 days of a sexual exposure, along with the hepatitis B vaccine series.

⁵Engerix-B® dialysis formulation is approved for adult hemodialysis patients by using 2 x 20mcg/1mL in one or two injections at 0, 1, 2 and 6 months.

⁶Recombivax HB® dialysis formulation is approved for pre-dialysis and dialysis patients in a three dose series of 40mcg/1mL at 0, 1, and 6 months.

Merck's 2-dose (adolescent) hepatitis B vaccine series (using the adult formulation of Recombivax HB® 10mcg, 1 ml) is approved only for adolescents 11-15 years of age. The second dose should be administered 4-6 months after the first dose. If the 2-dose regimen is used, documentation must indicate that the adolescent received 2 adult 10mcg (1ml) doses of the Merck brand. If a child starts the hepatitis B series prior to age 11, starts the hepatitis B series between the ages of 11 and 15 with a hepatitis B vaccine other than the adult formulation of the Merck product, or completes the series after age 15, a 3-dose series should be administered. *This specific use of vaccine is not included in the VFC program.*

GlaxoSmithKline's Twinrix® (hepatitis A and hepatitis B) is a combination vaccine that may be used as an alternative to single antigens for persons 18 years of age and older. It is recommended for administration at intervals of 0, 1 & 6 months to any adult for whom neither antigen is contraindicated.

For specific prescribing information, precautions, contraindications, and specific dialysis formulations, refer to product inserts.

Vaccination Schedule for Infants Born to Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women

Dose	Single-antigen vaccine	Combination Vaccines	
	Engerix-B® or Recombivax HB® (HepB)	Pediarix™ (DTaP-HepB-IPV)	Comvax® (HepB-Hib)
1	Birth*	Birth (only use single antigen vaccine)*	Birth (only use single antigen vaccine)*
2	1-2 months	2 months	2 months
3	6 months	4 months	4 months
4	NA	6 months	12-15 months

* Both single-antigen hepatitis B (hepB) vaccine (0.5mL) and hepatitis B immune globulin (HBIG) (0.5mL) should be given within 12 hours of birth. HBIG and hepB vaccine should be administered intramuscularly at different sites.

Combination Vaccines

After single-antigen hepB vaccine is given at birth, an additional 3 doses of a hepB-containing combination vaccines can be given to complete the series, starting at 6 weeks of age for those whom none of the antigens are contraindicated.

Comvax®: The combination hepatitis B and *Haemophilus influenzae* type B (Hib) vaccine Comvax® is NOT to be given at birth. Comvax® is licensed for use as a 3-dose series beginning at 6 weeks of age. This vaccine may be used when neither antigen is contraindicated.

Pediarix™: The combination DTaP-hepatitis B-inactivated poliovirus vaccine Pediarix™ is NOT to be given at birth. Pediarix™ is licensed for use as a 3-dose series beginning at 6 weeks to 7 years of age. This vaccine may be used when none of the antigens are contraindicated and only as a primary series.

Pre-term Infants

For pre-term infants who weigh less than 2000 g at birth, administer hepB vaccine and HBIG within 12 hours of birth. The initial hepB vaccine dose should not be counted as part of the 3-dose hepB vaccine series. Three additional doses of hepB vaccine should be administered beginning at chronological age of 1 month.

Note: The use of brand names is not meant to preclude the use of other comparable licensed hepB-Hib or DTaP-hepB-IPV combination vaccines.

Vaccine Storage Basics

1. Keep the refrigerator/freezer plugged in and cold

1. Refrigerators should have separate, sealed refrigerator & freezer compartments
2. Have separate temperature controls for refrigerator & freezer compartments
 - a. Put certified thermometers in the refrigerator and in the freezer
 - b. Check and record the temperature in the refrigerator & freezer twice daily
 - c. Use a safety plug or plug cover to prevent accidental disconnection
 - d. Place "DO NOT UNPLUG" warnings near the outlet and circuit breaker
 - e. Keep water bottles in refrigerator and ice packs in freezer

2. Keep these vaccines in the refrigerator (35° – 46° F or 2° – 8° C)

DTaP, Tdap, Td, DT	HPV4	PCV7
Hib	MMR*	PPV23
IPV	MCV4	TIV
Hep A	MPSV4	
Hep B	Rota	

- a. Put them in the refrigerator as soon as they arrive

3. Keep these vaccines frozen (5°F or -15°C or lower)

Varicella	LAIV
MMR*	Zoster
MMRV	

- a. Put them in the freezer as soon as they arrive

4. Keep vaccines protected from light

- a. Remove individual dose vials from cardboard package only as needed

5. Do not allow vaccine to expire

- a. Check expiration dates monthly
- b. Place vaccines so those that will expire first are used first
- c. Stock only what you can use in 1– 2 months
- d. For VFC vaccine: call your local health department VFC contact person if any of your VFC vaccine will expire in less than 6 months

6. Transport vaccines correctly

- a. Refrigerated vaccines must be transported in an insulated cooler with a barrier separating the vaccines from the ice/cold packs
- b. Place a thermometer in the cooler to monitor the temperature
- c. Frozen vaccines can only be transported in an insulated cooler with dry ice
- d. Place vaccines appropriately in the refrigerator or freezer immediately upon arrival at the clinic

*MMR vaccine can be stored in the refrigerator or the freezer

Injectable Vaccine Administration for Children Birth-6 years

Vaccine	Age/Reminders	Route	Site α	Needle*	Contraindications <input type="checkbox"/>
Diphtheria, Tetanus, Pertussis (DTaP)	6 weeks-6 years	IM	Anterolateral Thigh or Deltoid \pm	1"-1.5" 22-25 g	Anaphylactic reaction to prior dose or component; encephalopathy without other cause within 7 days of a pertussis- containing vaccine
<i>Haemophilus influenzae</i> type B (Hib)	No routine doses after 59 months	IM	Anterolateral Thigh or Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to prior dose or component
Pneumococcal conjugate (PCV7)	No routine doses after 59 months	IM	Anterolateral Thigh or Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to prior dose or component
Hepatitis B (Hep B)	1 st dose at birth; last dose at/after 6 months	IM	Anterolateral Thigh or Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to a prior dose or component (baker's yeast)
Inactivated Polio Vaccine (IPV)	Give one dose at/after age 4 years for school entry	SC	Anterolateral Thigh or Lateral Upper Arm	5/8" 23-25 g	Anaphylactic reaction to a prior dose or component (neomycin, streptomycin, polymyxin B)
Measles, Mumps, Rubella (MMR)	1 st dose at/after 12 mo; 4 week interval between two doses	IM	Anterolateral Thigh or Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to a prior dose or component (neomycin or gelatin); pregnancy
Varicella (Var)	1 st dose at/after 12 mo; 3 mo interval between two doses	SC	Anterolateral Thigh or Lateral Upper Arm	5/8" 23-25 g	Anaphylactic reaction to a prior dose or component (neomycin or gelatin); pregnancy
Inactivated Influenza (TIV)	6 months and older; brand to use based on age	IM	Anterolateral Thigh or Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to a prior dose or component (eggs)
Hepatitis A (Hep A)	1 st dose at/after 12 mo 2 nd dose 6 mo later	IM	Anterolateral Thigh or Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to prior dose or component; hypersensitivity to alum (Havrix®: 2-phenoxyethanol)

α Vaccines should never be administered in the buttocks. See package insert for complete contraindication/component listings; may vary by brand

* Professional judgment is appropriate when selecting needle length for use in all children, especially small infants or larger children.

\pm Use of the deltoid muscle in children 18 months and older (if adequate muscle mass is present) is an option for IM injections.

Injectable Vaccine Administration for Children 7-18 Years

Vaccine	Age/Reminders	Route	Site*	Needle*	Contraindications <input type="checkbox"/>
Tetanus, diphtheria (Td)	7 years and older	IM	Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to prior dose or component
Tetanus, diphtheria, pertussis (Tdap)	Routinely given at age 11-12 years; one dose <input checked="" type="checkbox"/>	IM	Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to prior dose or component; encephalopathy within 7 days of previous pertussis vaccine without other known cause
Hepatitis B (hep B)	1 st dose at birth; last dose at/after 6 mo	IM	Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to a prior dose or component (baker's yeast)
Inactivated Polio Vaccine (IPV)	Give one dose at/after age 4 years for school entry	SC	Lateral Upper Arm	5/8" 23-25 g	Anaphylactic reaction to a prior dose or component (neomycin, streptomycin, or polymyxin B)
		IM	Deltoid	1"-1.5" 22-25 g	
Measles, Mumps, Rubella (MMR)	1 st dose at/after 12 mo	SC	Lateral Upper Arm	5/8" 23-25 g	Anaphylactic reaction to a prior dose or component (neomycin, gelatin); pregnancy
		SC	Lateral Upper Arm	5/8" 23-25 g	
Varicella (Var)	1 st dose at/after 12 mo 12mo-12 yr: 3 months between dose 1 & 2	SC	Lateral Upper Arm	5/8" 23-25 g	Anaphylactic reaction to a prior dose or component (neomycin, gelatin); pregnancy
		IM	Deltoid	1"-1.5" 22-25 g	
Inactivated Influenza (TIV)	6 months and older	IM	Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to a prior dose or component (eggs)
		IM	Deltoid	1"-1.5" 22-25 g	
Meningococcal Conjugate (MCV4)	11-55 years	IM	Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to a prior dose or component
		IM	Deltoid	1"-1.5" 22-25 g	
Human Papilloma- virus (HPV4)	Females 9-26 years	IM	Deltoid	1"-1.5" 22-25 g	Anaphylactic reaction to prior dose or component; hypersensitivity to baker's yeast

* Professional judgment is appropriate when selecting needle length and administration site; do not administer vaccines in buttocks

See package insert for complete contraindication listing; components may vary by brand of vaccine used

Two Tdap vaccines available: Boostrix® (GSK) is licensed for persons 10-18 yrs; ADACEL™ (sanofi pasteur) licensed for persons 11-64 yrs.

See most recent AIM Kit for updates

HEPATITIS B VACCINE

WHAT YOU NEED TO KNOW

1 Why get vaccinated?

Hepatitis B is a serious disease.

The hepatitis B virus (HBV) can cause short-term (acute) illness that leads to:

- loss of appetite
- diarrhea and vomiting
- tiredness
- jaundice (yellow skin or eyes)
- pain in muscles, joints, and stomach

It can also cause long-term (chronic) illness that leads to:

- liver damage (cirrhosis)
- liver cancer
- death

About 1.25 million people in the U.S. have chronic HBV infection.

Each year it is estimated that:

- 80,000 people, mostly young adults, get infected with HBV
- More than 11,000 people have to stay in the hospital because of hepatitis B
- 4,000 to 5,000 people die from chronic hepatitis B

Hepatitis B vaccine can prevent hepatitis B. It is the first anti-cancer vaccine because it can prevent a form of liver cancer.

2 How is hepatitis B virus spread?

Hepatitis B virus is spread through contact with the blood and body fluids of an infected person. A person can get infected in several ways, such as:

- by having unprotected sex with an infected person
- by sharing needles when injecting illegal drugs
- by being stuck with a used needle on the job
- during birth when the virus passes from an infected mother to her baby

About 1/3 of people who are infected with hepatitis B in the United States don't know how they got it.

3 Who should get hepatitis B vaccine and when?

- 1) Everyone 18 years of age and younger
- 2) Adults over 18 who are at risk

Adults at risk for HBV infection include:

- people who have more than one sex partner in 6 months
- men who have sex with other men
- sex contacts of infected people
- people who inject illegal drugs
- health care and public safety workers who might be exposed to infected blood or body fluids
- household contacts of persons with chronic HBV infection
- hemodialysis patients

If you are not sure whether you are at risk, ask your doctor or nurse.

- ✓ **People should get 3 doses of hepatitis B vaccine according to the following schedule.** *If you miss a dose or get behind schedule, get the next dose as soon as you can. There is no need to start over.*

Hepatitis B Vaccination Schedule		WHO?		
		Infant whose mother is infected with HBV	Infant whose mother is <i>not</i> infected with HBV	Older child, adolescent, or adult
WHEN?	First Dose	Within 12 hours of birth	Birth - 2 months of age	Any time
	Second Dose	1 - 2 months of age	1 - 4 months of age (at least 1 month after first dose)	1 - 2 months after first dose
	Third Dose	6 months of age	6 - 18 months of age	4 - 6 months after first dose

- The second dose must be given at least 1 month after the first dose.
- The third dose must be given at least 2 months after the second dose and at least 4 months after the first.
- The third dose should *not* be given to infants under 6 months of age, because this could reduce long-term protection.

Adolescents 11 to 15 years of age may need only two doses of hepatitis B vaccine, separated by 4-6 months. Ask your health care provider for details.

Hepatitis B vaccine may be given at the same time as other vaccines.

4

Some people should not get hepatitis B vaccine or should wait

People should not get hepatitis B vaccine if they have ever had a life-threatening allergic reaction to **baker's yeast** (the kind used for making bread) or to a **previous dose of hepatitis B vaccine**.

People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting hepatitis B vaccine.

Ask your doctor or nurse for more information.



5

What are the risks from hepatitis B vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of hepatitis B vaccine causing serious harm, or death, is extremely small.

Getting hepatitis B vaccine is much safer than getting hepatitis B disease.

Most people who get hepatitis B vaccine do not have any problems with it.

Mild problems

- soreness where the shot was given, lasting a day or two (up to 1 out of 11 children and adolescents, and about 1 out of 4 adults)
- mild to moderate fever (up to 1 out of 14 children and adolescents and 1 out of 100 adults)

Severe problems

- serious allergic reaction (very rare)

6

What if there is a moderate or severe reaction?

What should I look for?

Any unusual condition, such as a serious allergic reaction, high fever or unusual behavior. Serious allergic DCH-0450

To allow medical care provider(s) accurate immunization status information, an immunization assessment, and a recommended schedule for future immunizations, information will be sent to the Michigan Care Improvement Registry. Individuals have the right to request that their medical care provider not forward immunization information to the Registry.

reactions are extremely rare with any vaccine. If one were to occur, it would be within a few minutes to a few hours after the shot. Signs can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** your doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your doctor, nurse, or health department to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

Or you can file this report through the VAERS web site at www.vaers.org, or by calling 1-800-822-7967.

VAERS does not provide medical advice

7

The National Vaccine Injury Compensation Program

In the rare event that you or your child has a serious reaction to a vaccine, a federal program has been created to help you pay for the care of those who have been harmed.

For details about the National Vaccine Injury Compensation Program, call **1-800-338-2382** or visit the program's website at www.hrsa.gov/osp/vicp

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How can I learn more?

- Ask your doctor or nurse. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department's immunization program. **1-888-767-4687**
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636** (1-800-CDC-INFO) or **1-888-443-7232**
 - Visit the National Immunization Program's website at www.cdc.gov/nip or CDC's Division of Viral Hepatitis website at www.cdc.gov/hepatitis



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention
National Immunization Program

Vaccine Information Statement
Hepatitis B (7/11/01) 42 U.S.C. § 300aa-26
AUTH: P.H.S., Act 42, Sect. 2126.

Important Vaccine Information Statement (VIS) Facts

VIS now posted on MDCH website

The English language Vaccine Information Statements (VIS) are now posted on our website. We are also in the process of posting the foreign language VIS.

In Michigan, it is important that vaccine recipients, their parents, or their legal representatives be given the Michigan version of the VIS because they include information about the Michigan Care Improvement Registry (MCIR). By state law, parents must be informed about MCIR. Vaccine Information Statements that are obtained from other sources (e.g., from the CDC or IAC websites) do not contain information about MCIR.

www.michigan.gov/immunize

Foreign Languages

The VIS are available in 33 foreign languages. They include information about MCIR. When the foreign language VIS is not the most current version, parents should also be given the current English version. To receive the VIS in a foreign language, call the MDCH Division of Immunization at 517-335-8159.

We are currently in the process of posting the foreign language VIS on the MDCH website. The foreign language VIS will be posted at www.michigan.gov/immunize.

VIS documentation procedures

By noting the version date of the VIS on the patient's vaccine administration record, the provider is indicating that the parent and/or patient received the most current information about the vaccine. To document this, the provider must note in the patient's medical record the date the VIS was given and the version date of the VIS.

VIS Version Dates (as of 1/11/07)		
VIS	Current Version Date	New Version Dates
HPV	Interim 9-5-06	
Hep B	7-11-01	
DTaP	7-30-01	
Td	6-10-94	
Tdap	Interim 7-12-06	
Hib	12-16-98	
IPV	1-1-00	
MMR	1-15-03	
VAR	Interim 1-10-07	
PCV	9-30-02	
PPV23	7-29-97	
Hep A	3-21-06	
TIV (Flu)	Updated annually	
LAIV (Flu)	Updated annually	
Meningococcal* (MCV4 & MPSV4)	Interim 11-16-06	
Rota (Rotavirus)	Interim 4-12-06	
Zoster (Shingles)	Interim 9-11-06	

VIS are available in these foreign languages

Albanian	Croatian (Serbian)	Ilokano	Portuguese	Spanish
Arabic	Farsi	Italian	Punjabi	Tagalog
Armenian	French	Japanese	Romanian	Thai
Bosnian	German	Korean	Russian	Turkish
Burmese	Haitian Creole	Laotian	Samoan	Vietnamese
Cambodian	Hindi	Marshallese	Serbo-Croatian	
Chinese	Hmong	Polish	Somali	

After receiving vaccines...



You have received one or more immunizations today: (circled)

Influenza – Injectable
Influenza – Nasal
Pneumococcal
Tetanus/Diphtheria
Tetanus/Diphtheria/Pertussis
Human Papillomavirus

Hepatitis A
Hepatitis B
Measles/Mumps/Rubella
Varicella (chickenpox)
Meningococcal
Zoster (shingles)

Sometimes the immunizations that protect you from serious diseases may also cause some discomfort. Reactions to vaccinations do occur, but serious reactions are rare. The more common reactions are redness, slight swelling and pain at the injection site and fever.

- If your arm becomes sore, you may want to apply ice or a cold pack to the injection area for 5–10 minutes at a time.
- Using or exercising the arm where the injection was given will distribute the medication quickly and decrease soreness.
- If you develop a fever greater than 100°F (38°C)
 - Please take a fever reducing medication as directed:
_____ for the next 24 hours.
 - Drink plenty of fluids.
 - Dress lightly.

If you have other questions or are concerned about how you are feeling, **CALL** the clinic!

The Clinic Phone Number is _____

Your next vaccine(s) are due on or after _____

Vaccine Administration Record for Children and Teens

Patient Name: Any Child

Date of Birth: 11/30/2002

MCIR ID#

Clinic Name/Address
Guide for using this form...

Vaccine	Date Vaccine ¹ & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given ²	Route ³	Signature of Vaccine Administrator	Client VFC Status ⁴
Diphtheria, Tetanus, Pertussis Types are: DTaP DT DTaP-Hib DTaP-HepB-IPV Tdap Td	02/05/03	DTaP-HepB-IPV	7/30/01	GSK	635A	RT	IM	Sally Woods MA	M
	04/05/03	DTaP-HepB-IPV	7/30/01	GSK	712A2	RT	IM	Sally Woods MA	M
	06/05/03	DTaP-HepB-IPV	7/30/01	GSK	712A2	RT	IM	Sally Woods MA	M
Haemophilus influenzae type b Types are: Hib Hib-HepB DTaP-Hib	02/05/03	Hib	12/16/98	AVP	UA744AA	LT	IM	Sally Woods MA	M
	04/05/03	Hib	12/16/98	AVP	UA744AA	LT	IM	Sally Woods MA	M
	06/05/03	Hib	12/16/98	AVP	UA744AA	LT	IM	Sally Woods MA	M
Hepatitis B Types are: HepB Hib-HepB DTaP-HepB-IPV	12/02/02*	Hep B				Given	at	Anywhere Hospital	
	02/05/03	DTaP-HepB-IPV	7/11/01	GSK	635A2	RT	IM	Sally Woods MA	M
	04/05/03	DTaP-HepB-IPV	7/11/01	GSK	712A2	RT	IM	Sally Woods MA	M
	06/05/03	DTaP-HepB-IPV	7/11/01	GSK	712A2	RT	IM	Sally Woods MA	M
Hepatitis A Type is: HepA									
Polio Types are: IPV DTaP-HepB-IPV	02/05/03	DTaP-HepB-IPV	1/01/00	GSK	635A2	RT	IM	Sally Woods MA	M
	04/05/03	DTaP-HepB-IPV	1/01/00	GSK	712A2	RT	IM	Sally Woods MA	M
	06/05/03	DTaP-HepB-IPV	1/01/00	GSK	712A2	RT	IM	Sally Woods MA	M
Measles, Mumps, Rubella Types are: MMR MMRV	12/20/03	MMR	1/15/03	MRK	0857M	LA	SC	Linda Miller MA	M
Varicella Types are: Var MMRV	Disease date								
	11/15/03								
Pneumococcal conjugate Type is: PCV7	02/05/03	PCV 7	9/30/02	WYE	489-835	RT	IM	Sally Woods MA	M
	04/05/03	PCV 7	9/30/02	WYE	489-835	RT	IM	Sally Woods MA	M
	06/05/03	PCV 7	9/30/02	WYE	489-835	RT	IM	Sally Woods MA	M
	03/05/04	PCV 7	9/30/02	WYE	501-245	LT	IM	Sally Woods MA	M
Rotavirus Type is: Rota									
Influenza Types are: TIV (Injectable) LAIV (Intranasal) (More space on the reverse side.)									
Meningococcal Types are: MCV4 MPSV4									
Human Papillomavirus Type is: HPV4									

[*] Indicates vaccine given elsewhere.

Same shot, 3 different Vaccine Information Statements (VIS) version dates

Documents disease history

How to complete the administration record for:

- Single Vaccines
- Combination Vaccines (ie. DTAP-HepB-IPV)
- Vaccines that are given elsewhere and
- History of Chickenpox Disease

¹ Place an asterisk (*) next to the date the vaccine was given to indicate vaccines administered elsewhere.
² Site Code: LA=LT ARM, RA=RT ARM, LL=LT LEG, RL=RT LEG ³ Route Code: IM=intramuscular, SC=subcutaneous, IN=intranasal, PO=oral
⁴ Client Status: M=Medicaid, U=Uninsured, D=Underinsured, P=Private Insurance, A=American Indian or Alaskan Native, V=MIVRP, L=Other Public Purchase

Vaccine Administration Record for Children and Teens

Patient Name: _____

Date of Birth: _____

MCIR ID# _____

Clinic Name/Address

Vaccine	Date Vaccine ¹ & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given ²	Route ³	Signature of Vaccine Administrator	Client VFC ⁴ Status
Diphtheria, Tetanus, Pertussis Types are: DTaP DT DTaP-Hib DTaP-HepB-IPV Tdap Td									
Haemophilus influenzae type b Types are: Hib Hib-HepB DTaP-Hib									
Hepatitis B Types are: HepB Hib-HepB DTaP-HepB-IPV									
Hepatitis A Type is: HepA									
Polio Types are: IPV DTaP-HepB-IPV									
Measles, Mumps, Rubella Types are: MMR MMRV									
Varicella Types are: Var MMRV									
Pneumococcal conjugate Type is: PCV7									
Rotavirus Type is: Rota									
Influenza Types are: TIV (Injectable) LAIV (Intranasal) (More space on the reverse side.)									
Meningococcal Types are: MCV4 MPSV4									
Human Papillomavirus Type is: HPV4									

¹ Place an asterisk (*) next to the date the vaccine was given to indicate vaccines administered elsewhere.
² Site Code: LA=Left Arm, RA=Right Arm, LL=Left Leg, RL= Right Leg ³ Route Code: IM= Intramuscular, SC=Subcutaneous, IN= Intranasal, PO=Oral
⁴ Client Status: M=Medicaid, U=Uninsured, D=Underinsured, P=Private Insurance, A=American Indian or Alaskan Native, V=MIVRP, L=Other Public Purchase
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 December 8, 2006

Patient Name: _____ Date of Birth: _____ MCIR ID# _____

Vaccine	Date Vaccine ¹ & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given ²	Route ³	Signature of Vaccine Administrator	Client VFC Status ⁴
Influenza Types are: TIV LAIV									
Other									
Other									
Other									
Other									

Note:
 Patients/parents should be informed about the risks and benefits associated with immunizations including those associated with the vaccine-preventable disease. Federal and state guidelines do not require a parent/patient signature to administer vaccines. However, health care providers have the option to obtain a signature. Check with your agency for specific requirements.

I have been given a copy and have read, or have had explained to me, the information contained on the appropriate Vaccine Information Statement (VIS) about the disease(s) and the vaccine(s) which are to be administered today. I have had a chance to ask questions that were answered to my satisfaction. I understand the benefits and risks of the specific vaccine(s) and I ask that the vaccine(s) I have requested be given to me, or to the person named, for whom I am authorized to make this request.

1. SIGNATURE	DATE	Insurance Status	8. SIGNATURE	DATE	Insurance Status
2. SIGNATURE	DATE	Insurance Status	9. SIGNATURE	DATE	Insurance Status
3. SIGNATURE	DATE	Insurance Status	10. SIGNATURE	DATE	Insurance Status
4. SIGNATURE	DATE	Insurance Status	11. SIGNATURE	DATE	Insurance Status
5. SIGNATURE	DATE	Insurance Status	12. SIGNATURE	DATE	Insurance Status
6. SIGNATURE	DATE	Insurance Status	13. SIGNATURE	DATE	Insurance Status
7. SIGNATURE	DATE	Insurance Status	14. SIGNATURE	DATE	Insurance Status

Advice for Parents

Parents face many issues while raising their children, but having a child with the hepatitis B virus (HBV) presents new challenges.

Avoid the spread of HBV

- All parents, siblings and other household members need hepatitis B (hepB) vaccine.
- Extended family members, childcare providers, family, friends and others that have frequent and close contact with an infected child should consider hepB vaccination.

Know the facts

- Give clear and simple facts about hepatitis B:
 - It is spread through blood and infected body fluids.
 - It can be spread through bites or open wounds.
 - It cannot be spread by sharing toys, sneezing, coughing, spitting, or hugging.
 - There is a safe and effective vaccine to protect you.

Telling others

- Consider if your child is at high or low risk for exposing others to his or her blood or body fluids (e.g., consider age, frequency of accidents, nosebleeds, biting, frequent or occasional contact).
- More and more children are now getting vaccinated against HBV, so the risk of your child infecting others is reduced.
- Use common sense in deciding whom to tell about your child's HBV. Once you tell someone, you cannot take it back!

Practice Universal Precautions

- Blood and body fluids should be treated as if they are potentially infectious.
- Clean all spills with a diluted solution of bleach (one part bleach and ten parts water).
- Properly dispose of items used to clean spills.
- Properly dispose of items such as tissues, menstrual pads and tampons, band-aids, and wound dressings so others don't come into contact with any blood or body fluids.
- Wash your hands thoroughly with soap and warm water.

(Modified from the Hepatitis B Foundation's *Advice for Parents*)

Information for People with Chronic Hepatitis B Infection How to Take Care of Yourself and Others

People with chronic hepatitis B virus (HBV) infection (having HBV for more than six months) are known as carriers. Carriers who get HBV at a young age have an increased risk of liver disease as adults. Most HBV carriers do not feel or look sick, but still need to see their doctors at least once a year for follow-up care.

Carriers may feel healthy, but they can still give HBV to others. Carriers must protect others from their blood, or other body fluids such as semen and vaginal fluids. HBV is not spread by sneezing, coughing, or by casual contact such as holding hands or hugging.

What you can do to take care of yourself

- See a doctor for a check-up at least once a year
- Review all medications (prescription, over-the-counter, and alternative) with your doctor
- Discuss with your doctor about getting periodic ultrasounds, alpha-fetoprotein (AFP) blood tests, or other studies to make sure there is no evidence of a developing liver cancer
- Don't drink alcohol because it can further damage your liver, especially when used with acetaminophen (an ingredient found in cold and headache remedies)
- Don't eat raw oysters
- Get the hepatitis A vaccinations and all other appropriate immunizations

What you can do to protect others

- If you are pregnant, tell your doctor that you have HBV so your baby can get the hepatitis B (hepB) vaccine and hepatitis B immune globulin (HBIG) at birth
- Cover all cuts and open sores
- Properly dispose of all items such as tissues, menstrual pads and tampons, so others don't come into contact with any blood or body fluids
- Wash hands well after touching your blood or body fluids
- Clean up blood spills with one part bleach to ten parts water
- Make sure all household and sexual partners are tested and treated
- Tell your sexual partner(s) that you have HBV and continue to use a latex condom until they test positive for the hepatitis B surface antibody (anti-HBs)
- Let your doctor and dentist know that you have HBV
- Do **NOT** share food or gum that has been in your mouth
- Do **NOT** share toothbrushes, razors, tattooing and body piercing equipment, earrings, nail files, clippers, or anything that may have come into contact with your blood or body fluids
- Do **NOT** share syringes or needles
- Do **NOT** donate blood, plasma, body organs, tissue, sperm or eggs

Free immunization brochures and materials order form

Order these materials online at <http://www.hpclearinghouse.org>

If you prefer, you may fax this order form to (517) 699-2376. For information about orders that have already been placed, call the Michigan Department of Community Health (MDCH) Clearinghouse toll-free at (888) 76-SHOTS. Any other questions should be directed to the MDCH Division of Immunization (517) 335-8159.

Please enter quantity for each requested item. (Orders for brochures are usually limited to 500, unless otherwise stated. Limits on orders may be temporarily decreased if inventory is low.)

Quantity needed	Item requested
(Limit 1)	<p>2007 Alliance for Immunization in Michigan (AIM) Provider Tool Kit – (Updated annually) This packet is designed for health care professionals who administer vaccines to their patients. Immunization schedules for children, adolescents and adults are included, along with information about contraindications, administration, documentation, and storage and handling of vaccines.</p>
(Limit 1,000)	<p>Adult Immunization Record Card</p>
(Limit 50)	<p>Influenza Vaccination Pocket Guide – (the pocket guides are for health care providers ONLY)</p>
(Limit 50)	<p>Pneumococcal Polysaccharide (PPV23) Vaccination Pocket Guide – (for health care providers)</p>
Quantity needed	Brochures
	<p>Protect Babies and Toddlers from Serious Diseases – UPDATED in 2006 (formerly called the Immunize Your Little Michigander brochure)</p>
	<p>Keep Your Family Safe from the Flu – UPDATED for 2006-2007 flu season</p>
	<p>If you have Diabetes, Getting a Flu Shot is a Family Affair</p>
	<p>Shots for your Child (about the Vaccines for Children program)</p>
	<p>Are you 11-19 years old? Then you need to be protected – UPDATED (Please note: An updated brochure will be available in early 2007.)</p>

Quantity needed	Brochures
	Vaccine Safety – What parents need to know (Please note: An updated brochure will be available in 2007.)
	Adult Immunizations – Are you protected?
	Hepatitis B: What Parents Need to Know (With special information for pregnant women) (Please note: An updated brochure will be available in 2007.)
	The Dangers of Hepatitis B: What they are, How to avoid them
	Hepatitis, What you need to know (ABCs)
	Antibiotics: What You Should Know

To order:

- Materials may be ordered online at <http://www.hpclearinghouse.org>
- This form may also be faxed to the MDCH Clearinghouse at (517) 699-2376

Name: _____

Type of Clinic/practice: _____
 Pediatric Family Practice Adult/Internal Med OB/GYN Specialty

Email address*: _____

Street address*: _____

City: _____ **State:** MI** **Zip code:** _____

Phone no.: _____ (include area code)

*Complete email address to receive immunization information updates.

** Reminder: We cannot ship to P.O. boxes. ** Materials are available to Michigan residents only.

For more information or for special requests, contact the Michigan Department of Community Health, Division of Immunization (517) 335-8159.

Rev 1/3/07



Immunization Materials

Order Date:

To order, complete the shipping information below, then indicate the quantity of each item you desire. Where possible, the latest revision date for an item is given. **NOTE:** Private providers, mail your order to your local county health department. Local county health departments, mail/fax your order to the Division of Immunization, Michigan Department of Community Health, 201 Townsend Street, PO Box 30195, Lansing, MI 48909; fax number: 517-335-9855. **Orders cannot be shipped to a PO Box.**

Organization	Contact Person
Street Address	Phone Number (include area code)
City	Zip Code

FORMS			
Quantity		Quantity	
	Health Appraisal Form (6-2001) OCAL-3305		Official Certificate of Immunization - Wallet Size (3-2005) DCH-0592
	Immunization Materials Order Form (5-2005) DCH-0487		Perpetual Inventory Record Card (8" x 5") (2-2002) DCH-1117
	Immunization Signature Record Card (7-2005) DCH-0606		Perpetual Inventory Record Sheet (5-91) DCH-0607
	Mich. School Bldg. Weekly Report for Communicable Disease (3-2005) DCH-0453		Vaccine Administration Record (9-94) IP-95
	MOMS Reminder Card (General) (1-96) IP-12		Vaccine Adverse Event Reporting System VAERS-1
	MOMS Reminder Card (Tots) (1-96) IP-12A		

PERINATAL HEPATITIS B MATERIALS (Call 517-335-8122 to order hepatitis B forms)			
Quantity		Quantity	
	Alert Stickers IP-83		Perinatal Case Report (Contact & Infant) (8/05) DCH-0973
	Important Cards		"Mothers — Don't share hepatitis B" Cards

VACCINE INFORMATION STATEMENTS (VIS) ON NEXT PAGE

VACCINE INFORMATION STATEMENTS (VISS)

All Vaccine Information Statements are available in the languages shown unless otherwise noted. Please indicate the number of VIS sheets you require in each language desired. All English VISs are available ONLY in packages of 250. All translations may have the same version date as the English version. The following VISs are available in the indicated languages.

LANGUAGE KEY 	English (E), Albanian (AL), Arabic (AR), Armenian (A), Bosnian (B), Burmese (BU) Cambodian (CA), Chinese (C), Croation (Serbian) (CR), Farsi (FA), French (F), German (G), Haitian Creole (HC), Hindi (HI), Hmong (H), Ilokano (IL), Italian (I), Japanese (J), Korean (K), Laotian (L), Marshallese (M), Polish (PO), Portuguese (P), Punjabi (PU), Romanian (RO), Russian (RU), Samoan (SA), Serbo-Croatian (SC), Somali (SO), Spanish (S), Tagalog (T), Thai (TH), Turkish (TU), Vietnamese (V)
Chickenpox	Available in: All except M
DTaP	Available in: All except M
Hib	Available in: All except M
Hepatitis A	Available in: All except BU, M
Hepatitis B	Available in: All except M
Influenza	Available in: All except AR, BU, G, M, RO, SA
Japanese Encephalitis	Available in E
MMR	Available in: All languages
Meningococcal	Available in: E, HC, PO, RU, SO, S, TH, TU
Pneumococcal Conjugate	Available in: All except BU, M
Pneumococcal Polysaccharide	Available in: E, CA, C, HC, H, L, RU, SO, S, TH, TU, V
Polio	Available in: All except BU, M
Rabies	Available in: E, S
Rotavirus	Available in: E, S, TH
Smallpox	Available in: E, CA, H, L, RU, SC, SO, S, V
Td	Available in: All except BU, M
Tdap	Available in: E, S
Typhoid	Available in: E, S
Yellow Fever	Available in: E, S

To order VIS in the desired language, please indicate how many of each language you need. Example: For Chickenpox – 250 E, 100 S, 25 J = Equals: 250 English, 100 Spanish & 25 Japanese. **Please PRINT clearly.**

Chickenpox	
DTaP	
Hib	
Hepatitis A	
Hepatitis B	
Human Papillomavirus (E , S, TH Only)	
Influenza	
MMR	
Meningococcal	
Pneumococcal Conjugate	
Pneumococcal Polysaccharide	
Polio	
Rabies	
Rotavirus	
Smallpox	
Shingles (English Only)	
Td	
Tdap	
Typhoid	
Yellow Fever	

Web Sites for Hepatitis Resources

GENERAL INFORMATION

American Academy of Pediatrics	www.aap.org
Centers for Disease Control & Prevention (CDC)	www.cdc.gov
CDC Morbidity and Mortality Weekly Report (MMWR)	www.cdc.gov/mmwr
Immunization Action Coalition (IAC)	www.immunize.org
IAC (vaccine information)	www.vaccineinformation.org
Immunization Gateway	www.immunofacts.com
Michigan Occupational Safety and Health Administration (MIOSHA)	www.michigan.gov/miosha
MIOSHA Standards for Bloodborne Pathogens	www.michigan.gov/documents/CIS_WSH_part554_35632_7.pdf
Parents of Kids w/Infectious Diseases (PKIDS)	www.pkids.org
Partnership for Prescription Assistance	www.pparxmi.org
Patient Advocate Foundation	www.patientadvocate.org
Vaccine Safety	www.cdc.gov/nip/vacsafe
World Health Organization (WHO)	www.who.int/immunization

HEPATITIS INFORMATION

American Gastroenterological Association	www.gastro.org
American Liver Foundation	www.liverfoundation.org
Asian Liver Center	www.asianlivercenter.org
CDC Hepatitis Information	www.cdc.gov/hepatitis
Clinical Trial Information	www.clinicaltrials.gov
Hepatitis and Intravenous Drug Use	www.cdc.gov/idu
Hepatitis B Foundation (Liver Specialists)	www.hepb.org
Hepatitis B Info Page	www.geocities.com/hbvinfo
Hepatitis B Recommendations: "A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States"	www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm
Hepatitis B support information	www.hblist.org
Hepatitis C Info Page	www.all-about-hepatitisc.com
Hepatitis C Connection	www.hepc-connection.org
Hepatitis Foundation International	www.hepfi.org
Hepatitis Support Project	www.hbvadvocate.org
HIV and Hepatitis Site	www.HIVandHepatitis.com
Janis and Friends Hepatitis C Support	www.Janis7hepc.com
Massachusetts Hepatitis Patient Empowerment Project	www.ma-heppep.org
Michigan Hepatitis C Foundation	www.mihepc.org
North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition	www.naspgn.org
Perinatal Hepatitis B Program Manual	www.michigan.gov/hepatitisB

PHARMACEUTICAL COMPANIES

Amgen	www.amgen.com
Bristol-Myers Squibb Company	www.bristolmyers.com
Gilead	www.gilead.com
GlaxoSmithKline	www.gsk.com
MedImmune	www.medimmune.com
Merck and Co., Inc	www.merck.com
North American Biologics, Inc	www.nabi.com
Novartis	www.novartis.com
Roche Pharmaceuticals	www.roche.com
sanofi pasteur	www.sanofipasteur.com
Schering-Plough	www.schering.com
Wyeth-Lederle Vaccines and Pediatrics	www.ahp.com

Recommended Immunization Schedule for Ages 0–6 Years UNITED STATES • 2007

Vaccine ▼	Age ►	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19–23 months	2–3 years	4–6 years	
Hepatitis B ¹	HepB	HepB	HepB	see footnote 1	HepB	HepB Series							Range of recommended ages
Rotavirus ²			Rota	Rota	Rota								Catch-up immunization
Diphtheria, Tetanus, Pertussis ³			DTaP	DTaP	DTaP		DTaP					DTaP	Certain high-risk groups
Haemophilus influenzae type b ⁴			Hib	Hib	Hib ⁴	Hib	Hib						
Pneumococcal ⁵			PCV	PCV	PCV	PCV					PCV PPV		
Inactivated Poliovirus			IPV	IPV		IPV						IPV	
Influenza ⁶						Influenza (Yearly)							
Measles, Mumps, Rubella ⁷						MMR						MMR	
Varicella ⁸						Varicella						Varicella	
Hepatitis A ⁹						HepA (2 doses)					HepA Series		
Meningococcal ¹⁰											MPSV4		

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2006, for children through age 6 years. For additional information see www.cdc.gov/nip/recs/child-schedule.htm. Any dose not administered at the recommended age should be administered at any subsequent visit when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components

of the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at www.vaers.hhs.gov or by telephone, 800-822-7967.

1. Hepatitis B vaccine (HepB). (Minimum age: birth)

At birth:

- Administer monovalent HepB to all newborns prior to hospital discharge.
- If mother is HBsAg-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth. Determine the HBsAg status as soon as possible and if HBsAg-positive, administer HBIG (no later than age 1 week).
- If mother is HBsAg-negative, the birth dose can only be delayed with physician's order and mothers' negative HBsAg laboratory report documented in the infant's medical record.

Following the birth dose:

- The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB. The second dose should be administered at age 1–2 months. The final dose should be administered at age ≥24 weeks. Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg after completion of 3 or more doses in a licensed HepB series, at age 9–18 months (generally at the next well-child visit).

4-month dose of HepB:

- It is permissible to administer 4 doses of HepB when combination vaccines are given after the birth dose. If monovalent HepB is used for doses after the birth dose, a dose at age 4 months is not needed.

2. Rotavirus vaccine (Rota). (Minimum age: 6 weeks)

- Administer the first dose between 6 and 12 weeks of age. Do not start the series later than age 12 weeks.
- Administer the final dose in the series by 32 weeks of age. Do not administer a dose later than age 32 weeks.
- There are insufficient data on safety and efficacy outside of these age ranges.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). (Minimum age: 6 weeks)

- The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose.
- Administer the final dose in the series at age 4–6 years.

4. Haemophilus influenzae type b conjugate vaccine (Hib). (Minimum age: 6 weeks)

- If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required.
- TriHiBit® (DTaP/Hib) combination products should not be used for primary immunization but can be used as boosters following any Hib vaccine in ≥12 months olds.

5. Pneumococcal vaccine. (Minimum age: 6 weeks for Pneumococcal Conjugate Vaccine (PCV); 2 years for Pneumococcal Polysaccharide Vaccine (PPV))

- Administer PCV at ages 24–59 months in certain high-risk groups. Administer PPV to certain high-risk groups aged ≥2 years. See *MMWR* 2000; 49(RR-9):1-35.

6. Influenza vaccine. (Minimum age: 6 months for trivalent inactivated influenza vaccine (TIV); 5 years for live, attenuated influenza vaccine (LAIV))

- All children aged 6–59 months and close contacts of all children aged 0–59 months are recommended to receive influenza vaccine.
- Influenza vaccine is recommended annually for children aged ≥59 months with certain risk factors, healthcare workers, and other persons (including household members) in close contact with persons in groups at high risk. See *MMWR* 2006; 55(RR-10):1-41.
- For healthy persons aged 5–49 years, LAIV may be used as an alternative to TIV.
- Children receiving TIV should receive 0.25 mL if aged 6–35 months or 0.5 mL if aged ≥3 years.
- Children aged <9 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥4 weeks for TIV and ≥6 weeks for LAIV).

7. Measles, mumps, and rubella vaccine (MMR). (Minimum age: 12 months)

- Administer the second dose of MMR at age 4–6 years. MMR may be administered prior to age 4–6 years, provided ≥4 weeks have elapsed since the first dose and both doses are administered at age ≥12 months.

8. Varicella vaccine. (Minimum age: 12 months)

- Administer the second dose of varicella vaccine at age 4–6 years. Varicella vaccine may be administered prior to age 4–6 years, provided that ≥3 months have elapsed since the first dose and both doses are administered at age ≥12 months. If second dose was administered ≥28 days following the first dose, the second dose does not need to be repeated.

9. Hepatitis A vaccine (HepA). (Minimum age: 12 months)

- HepA is recommended for all children at 1 year of age (i.e., 12–23 months). The 2 doses in the series should be administered at least 6 months apart.
- Children not fully vaccinated by age 2 years can be vaccinated at subsequent visits.
- HepA is recommended for certain other groups of children including in areas where vaccination programs target older children. See *MMWR* 2006; 55(RR-7):1-23.

10. Meningococcal polysaccharide vaccine (MPSV4). (Minimum age: 2 years)

- Administer MPSV4 to children aged 2–10 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups. See *MMWR* 2005;54 (RR-7):1-21.

The Childhood and Adolescent Immunization Schedule is approved by:

Advisory Committee on Immunization Practices www.cdc.gov/nip/acip • American Academy of Pediatrics www.aap.org • American Academy of Family Physicians www.aafp.org

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Recommended Immunization Schedule for Ages 7–18 Years UNITED STATES • 2007

Vaccine ▼	Age ►	7-10 years	11-12 YEARS	13-14 years	15 years	16-18 years
Tetanus, Diphtheria, Pertussis ¹	see footnote 1		Tdap		Tdap	
Human Papillomavirus ²	see footnote 2		HPV (3 doses)		HPV Series	
Meningococcal ³		MPSV4	MCV4		MCV4 ³	MCV4
Pneumococcal ⁴			PPV			
Influenza ⁵			Influenza (Yearly)			
Hepatitis A ⁶			HepA Series			
Hepatitis B ⁷			HepB Series			
Inactivated Poliovirus ⁸			IPV Series			
Measles, Mumps, Rubella ⁹			MMR Series			
Varicella ¹⁰			Varicella Series			

- Range of recommended ages
- Catch-up immunization
- Certain high-risk groups

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2006, for children aged 7–18 years. For additional information see www.cdc.gov/nip/recs/child-schedule.htm. Any dose not administered at the recommended earlier age should be administered at any subsequent visit when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of

the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at www.vaers.hhs.gov or by telephone, 800-822-7967.

FOOTNOTES

1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).

(Minimum age: 10 years for BOOSTRIX® and 11 years for ADACEL™)

- Administer at age 11–12 years for those who have completed the recommended childhood DTP/DaP vaccination series and have not received a Td booster dose.
- Adolescents 13–18 years who missed the 11–12 year Td/Tdap booster dose should also receive a single dose of Tdap if they have completed the recommended childhood DTP/DaP vaccination series.

2. Human papillomavirus vaccine (HPV). (Minimum age: 9 years)

- Administer the first dose of the HPV vaccine series to females at age 11–12 years.
- Administer the second dose 2 months after the first dose and the third dose 6 months after the first dose.
- Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.

3. Meningococcal vaccine. (Minimum age: 11 years for meningococcal conjugate vaccine (MCV4); 2 years for meningococcal polysaccharide vaccine (MPSV4))

- Administer MCV4 at age 11–12 years and to previously unvaccinated adolescents at high school entry (~15 years of age).
- Administer MCV4 to previously unvaccinated college freshmen living in dormitories; MPSV4 is an acceptable alternative.
- Vaccination against invasive meningococcal disease is recommended for children and adolescents aged ≥2 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups. See *MMWR* 2005;54 (RR-7):1-21. Use MPSV4 for children aged 2–10 years and MCV4 or MPSV4 for older children.

4. Pneumococcal polysaccharide vaccine (PPV).

(Minimum age: 2 years)

- Administer for certain high-risk groups. See *MMWR* 1997; 46(RR-08):1-24 and *MMWR* 2000; 49(RR-9):1-35.

5. Influenza vaccine. (Minimum age: 6 months for trivalent inactivated influenza vaccine (TIV); 5 years for live, attenuated influenza vaccine (LAIV))

- Influenza vaccine is recommended annually for persons with certain risk factors, healthcare workers, and other persons (including household members) in close contact with persons in groups at high risk. See *MMWR* 2006; 55(RR-10):1-41.
- For healthy persons aged 5–49 years, LAIV may be used as an alternative to TIV.
- Children aged <9 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥4 weeks for TIV and ≥6 weeks for LAIV).

6. Hepatitis A vaccine (HepA). (Minimum age: 12 months)

- The 2 doses in the series should be administered at least 6 months apart.
- HepA is recommended for certain other groups of children including in areas where vaccination programs target older children. See *MMWR* 2006; 55(RR-7):1-23.

7. Hepatitis B vaccine (HepB). (Minimum age: birth)

- Administer the 3-dose series to those who were not previously vaccinated.
- A 2-dose series of Recombivax HB® is licensed for 11–15 year olds.

8. Inactivated poliovirus vaccine (IPV). (Minimum age: 6 weeks)

- For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age ≥4 years.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be given, regardless of the child's current age.

9. Measles, mumps, and rubella vaccine (MMR).

(Minimum age: 12 months)

- If not previously vaccinated, administer 2 doses of MMR during any visit with ≥4 weeks between the doses.

10. Varicella vaccine. (Minimum age: 12 months)

- Administer 2 doses of varicella vaccine to persons without evidence of immunity.
- Administer 2 doses of varicella vaccine to persons aged ≤13 years at least 3 months apart. Do not repeat the second dose, if administered ≥28 days following the first dose.
- Administer 2 doses of varicella vaccine to persons aged ≥13 years at least 4 weeks apart.

The Childhood and Adolescent Immunization Schedule is approved by:

Advisory Committee on Immunization Practices www.cdc.gov/nip/acip • American Academy of Pediatrics www.aap.org • American Academy of Family Physicians www.aafp.org

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Recommended Immunization Schedule for Children and Adolescents Who Start Late or Who Are More Than 1 Month Behind

UNITED STATES • 2007

The tables below give catch-up schedules and minimum intervals between doses for children who have delayed immunizations. There is no need to restart a vaccine series regardless of the time that has elapsed between doses. Use the table appropriate for the child's age.

CATCH-UP SCHEDULE FOR AGES 4 MONTHS THROUGH 6 YEARS

Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Hepatitis B ¹	Birth	4 weeks	8 weeks (and 16 weeks after first dose)		
Rotavirus ²	6 wks	4 weeks	4 weeks		
Diphtheria, Tetanus, Pertussis ³	6 wks	4 weeks	4 weeks	6 months	6 months ³
<i>Haemophilus influenzae</i> type b ⁴	6 wks	4 weeks if first dose given at age <12 months 8 weeks (as final dose) if first dose given at age 12–14 months No further doses needed if first dose given at age ≥15 months	4 weeks ⁴ if current age <12 months 8 weeks (as final dose) ⁴ if current age ≥12 months and second dose given at age <15 months No further doses needed if previous dose given at age ≥15 months	8 weeks (as final dose) This dose only necessary for children aged 12 months–5 years who received 3 doses before age 12 months	
Pneumococcal ⁵	6 wks	4 weeks if first dose given at age <12 months and current age <24 months 8 weeks (as final dose) if first dose given at age ≥12 months or current age 24–59 months No further doses needed for healthy children if first dose given at age ≥24 months	4 weeks if current age <12 months 8 weeks (as final dose) if current age ≥12 months No further doses needed for healthy children if previous dose given at age ≥24 months	8 weeks (as final dose) This dose only necessary for children aged 12 months–5 years who received 3 doses before age 12 months	
Inactivated Poliovirus ⁶	6 wks	4 weeks	4 weeks	4 weeks ⁶	
Measles, Mumps, Rubella ⁷	12 mos	4 weeks			
Varicella ⁸	12 mos	3 months			
Hepatitis A ⁹	12 mos	6 months			

CATCH-UP SCHEDULE FOR AGES 7–18 YEARS

Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Tetanus, Diphtheria/ Tetanus, Diphtheria, Pertussis ¹⁰	7 yrs ¹⁰	4 weeks	8 weeks if first dose given at age <12 months 6 months if first dose given at age ≥12 months	6 months if first dose given at age <12 months	
Human Papillomavirus ¹¹	9 yrs	4 weeks	12 weeks		
Hepatitis A ⁹	12 mos	6 months			
Hepatitis B ¹	Birth	4 weeks	8 weeks (and 16 weeks after first dose)		
Inactivated Poliovirus ⁶	6 wks	4 weeks	4 weeks	4 weeks ⁶	
Measles, Mumps, Rubella ⁷	12 mos	4 weeks			
Varicella ⁸	12 mos	4 weeks if first dose given at age ≥13 years 3 months if first dose given at age <13 years			

- Hepatitis B vaccine (HepB).** (Minimum age: birth)
 - Administer the 3-dose series to those who were not previously vaccinated.
 - A 2-dose series of Recombivax HB[®] is licensed for 11–15 year olds.
- Rotavirus vaccine (Rota).** (Minimum age: 6 weeks)
 - Do not start the series later than age 12 weeks.
 - Administer the final dose in the series by 32 weeks of age. Do not administer a dose later than age 32 weeks.
 - There are insufficient data on safety and efficacy outside of these age ranges.
- Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).** (Minimum age: 6 weeks)
 - The fifth dose is not necessary if the fourth dose was administered at age ≥4 years.
 - DTaP is not indicated for persons aged ≥7 years.
- Haemophilus influenzae* type b conjugate vaccine (Hib).** (Minimum age: 6 weeks)
 - Vaccine is not generally recommended for children aged ≥5 years.
 - If current age <12 months and the first 2 doses were PRP-OMP (PedvaxHIB[®] or ComVax[®] [Merck]), the third (and final) dose should be administered at age 12–15 months and at least 8 weeks after the second dose.
 - If first dose given at age 7–11 months, give 2 doses separated by 4 weeks plus a booster at age 12–15 months.
- Pneumococcal conjugate vaccine (PCV).** (Minimum age: 6 weeks)
 - Vaccine is not generally recommended for children aged ≥5 years.
- Inactivated poliovirus vaccine (IPV).** (Minimum age: 6 weeks)
 - For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age ≥4 years.
 - If both OPV and IPV were administered as part of a series, a total of 4 doses should be given, regardless of the child's current age.
- Measles, mumps, and rubella vaccine (MMR).** (Minimum age: 12 months)
 - The second dose of MMR is recommended routinely at age 4–6 years but may be administered earlier if desired.
 - If not previously vaccinated, administer 2 doses of MMR during any visit with ≥4 weeks between the doses.
- Varicella vaccine.** (Minimum age: 12 months)
 - The second dose of varicella vaccine is recommended routinely at age 4–6 years but may be administered earlier if desired.
 - Do not repeat the second dose in persons aged <13 years, if administered ≥28 days following the first dose.
- Hepatitis A vaccine (HepA).** (Minimum age: 12 months)
 - HepA is recommended for certain groups of children including in areas where vaccination programs target older children. See *MMWR* 2006; SS (RR-7) 1–23.
- Tetanus and diphtheria toxoids vaccine (Td) and tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).** (Minimum ages: 7 years for Td, 10 years for BOOSTRIX[®], and 11 years for ADACEL[™])
 - Tdap should be substituted for a single dose of Td in the primary catch-up series or as a booster if age-appropriate; use Td for other doses.
 - A five-year interval from the last Td dose is encouraged when Tdap is used as a booster dose. A booster (4th) dose is needed if any of the previous doses were administered at age <12 months. Refer to ACIP recommendations for further information. See *MMWR* 2006; SS (RR-3) L34.
- Human papillomavirus vaccine (HPV).** (Minimum age: 9 years)
 - Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.

For information on reporting reactions following immunization, visit www.vaers.hhs.gov or call the 24-hour national toll-free information line 800-822-7967. Report suspected cases of vaccine-preventable diseases to your state or local health

department. For additional information including precautions and contraindications for immunization, visit the National Center for Immunization and Respiratory Diseases at www.cdc.gov/ncid or contact 800-CDC-INFO (800-232-4636).

Is the vaccine safe?

The hepB vaccine is very safe. The most common side effect is soreness at the place where the shot was given.

Before babies are given the hepB vaccine, their parents should be given a form called Hepatitis B Vaccine, What You Need To Know. This form gives information about the vaccine. Parents are asked to read the form and then talk with the doctor or nurse if they have questions.

Should older children get the hep B vaccine?

All children and teenagers should get the hepB vaccine. Parents can talk to their children's doctor or nurse about getting the vaccine.

Should anyone else get the shots?

People should get the hepB vaccine if they:

- live with someone who has the hepatitis B virus
- have more than one sexual partner
- have a sexually transmitted disease
- are a hemodialysis patient
- get blood products
- have liver disease
- come into contact with blood at their jobs
- inject drugs

More information

For more information, call your child's doctor, local health department, or the Michigan Department of Community Health Perinatal Hepatitis B Prevention Program at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

Websites

Michigan Department of Community Health
www.michigan.gov/hepatitisb

Centers for Disease Control and Prevention (CDC)
www.cdc.gov/hepatitis

Immunization Action Coalition
www.immunize.org

Hepatitis B Information and Support List
www.hblist.org

**PROTECT YOUR CHILDREN TODAY
BY HAVING THEM GET THEIR
HEPATITIS B SHOTS!**

*Michigan Department
of Community Health*

MDCH

Jennifer M. Granholm, Governor
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30,000 printed at 3.9 cents each with a total cost of \$3,905.69.

Rev. 11/06



HEPATITIS B:

What Parents Need to Know

 With special information
for pregnant women



What is hepatitis B?

Hepatitis B is a disease caused by a virus that infects the liver. People often show no signs of having the virus. Most people who get the virus get better in a few months, but some carry the virus in their blood all their lives (they are called carriers). In the United States, about 51,000 people get hepatitis B every year, and about one million people are carriers.

♥ **Babies can get hepatitis B at birth if their mother has the hepatitis B virus.**

♥ **Babies and young children may also get hepatitis B if they come into contact with blood or body fluids from their mother or from people they live with who have hepatitis B. The younger you are when you get hepatitis B, the more likely you will become a carrier of the disease.**

How do you get hepatitis B?

You can get it:

- ♥ **at birth, if your mother has the virus**
 - by having sex or sharing needles with someone who has the virus
 - by sharing personal things like razors and toothbrushes with a person who has the virus

One out of three people with the hepatitis B virus does not know how he or she got it.

How do you know if you have hepatitis B?

Hepatitis B can make you feel tired or sick and can sometimes make your skin and eyes yellow.

Many people don't know they have hepatitis B, because they don't feel or look sick. Even if you don't look or feel sick, you can still get liver disease and give hepatitis B to others.

The only way to know if you have hepatitis B is to get a blood test.

♥ **Women should be tested for hepatitis B surface antigen (HBsAg) during EACH pregnancy to see if they have the hepatitis B virus.**

How can babies be safe from getting hepatitis B?

♥ **If a test shows that a pregnant woman has the hepatitis B virus in her blood, her baby can get this virus at birth. Babies born to women who have the hepatitis B virus need:**

- hepatitis B immune globulin (HBIG) and hepatitis B (hepB) vaccine **WITHIN TWELVE HOURS OF BIRTH**
- a second shot of hepB vaccine at one to two months of age
- a third shot at six months of age
- a blood test three to nine months after the last shot to make sure that they are safe from getting the hepatitis B virus

Babies born to women who do NOT have the hepatitis B virus should also get the hepB vaccine:

- starting at birth
- at one to two months of age
- on or after six months of age







STATE OF MICHIGAN
DEPARTMENT OF COMMUNITY HEALTH
Official State of Michigan Immunization Record

MCIR ID#: 10334350978 **Gender:** M **Patient ID#:**
Name: Fineis, Patrick **Age:** 2 Months 21 Days **DOB:** 03/14/2006
Responsible Party: Patrick Fineis
Address: 123 Main Street
City,State,Zip: Lansing, MI 48909
Telephone:
As of: June 5, 2006
Provider: Assessment indicates that vaccinations can be administered today if not medically contraindicated.

History of Shots Given by Series							
Vaccine Series	Dose#1	Dose#2	Dose#3	Dose#4	Dose#5	Dose#6	Dose#7
Hepatitis B	03/14/2006						
Various Immune Globulins	03/14/2006						

Immunization Status and Shots Needed				
Vaccine Series	Next Dose Due	Accelerated Due Date	Recommended Date	Overdue Date
DTP/DTaP/DT/Td	1	04/25/2006	05/14/2006	06/14/2006
Polio	1	04/25/2006	05/14/2006	06/14/2006
MMR	1	03/14/2007	03/14/2007	06/14/2007
Hib	1	04/25/2006	05/14/2006	06/14/2006
Hepatitis B	2	04/11/2006	05/14/2006	08/14/2006
Varicella	1	03/14/2007	03/14/2007	06/14/2007
Pneumococcal Conjugate	1	04/25/2006	05/14/2006	06/14/2006
Rotavirus	1	04/25/2006	04/25/2006	06/06/2006

Signature: _____

Date: ____/____/____

MCIR ID#: 10334350978
Name: Fineis, Patrick

Gender: M
Age: 2 Months 21 Days
Patient ID#:
DOB: 03/14/2006

Shots given Today							
Vaccine Type	Date	Dose Qty	Site	Mfg	Lot#	VIS Date	Signature

Non-Administrations/Titers/Immunity		
Series/Antigen	Date	Reason

Vaccines by Date Administered				
Vaccine	Date	Manufacturer	Lot#	Dose Qty
Hep B (pediatric or adolescent)	03/14/2006			0
HBIG: Hep B globulin	03/14/2006			0

INDIVIDUAL IMMUNIZATION RECORD

BRING THIS RECORD FOR IMMUNIZATIONS

NAME (Last, First, Middle)				
BIRTHDATE / /		BIRTH NAME		
VACCINE	TYPE OF VACCINE	DATE GIVEN Mo/Day/Year	HEALTH PROFESSIONAL OR CLINIC	DATE NEXT DOSE DUE
Diphtheria- Tetanus- Pertussis (DTaP/DTP/DT/ Td/Tdap)	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
<i>Haemophilus Influenza type B (Hib)</i>	1			
	2			
	3			
	4			
Hepatitis B (HepB)	1			
	2			
	3			
	4			
Polio (IPV/OPV)	1			
	2			
	3			
	4			
Pneumococcal Conjugate (PCV7)	1			
	2			
	3			
	4			
Rotavirus (Rota)	1			
	2			
	3			
Hepatitis A (HepA)	1			
	2			
Measles-Mumps- Rubella (MMR)	1			
	2			
Varicella (Var) Chickenpox	1			
	2			
	HX of chickenpox			
Meningococcal (MCV4/MPSV4)	1			
	2			
Human Papillomavirus (HPV4)	1			
	2			
	3			
Zoster <i>Shingles</i>	1			
Influenza (TIV/LAIV)**				
	Other			

** Influenza vaccine recommendations change from year to year. Please check www.michigan.gov/flu for the most current changes, or call your local health department.

Combination vaccines should always be documented under each antigen.
 For more information, call your health care provider, your local health department, or 1-888-767-4687.

OFFICIAL IMMUNIZATION RECORD

For Children and Adults

Name: _____ Sex: F M

Birthdate: ____ / ____ / ____

Special Problems: _____

Physician/Clinic: _____

Name

Telephone

Parent/Guardian: _____

Name

Telephone

Ages For Routine Childhood Vaccinations*

BIRTH
2 MONTHS
4 MONTHS
6 MONTHS
12-15 MONTHS
18 MONTHS
4-6 YEARS
11-12 YEARS

*Alternative schedules are possible. Ask your doctor for details.

FOR MORE INFORMATION:
www.michigan.gov/immunize
or www.cdc.gov/nip

Getting immunized is a life-long job that prevents serious diseases.

- Children 11-12 years of age need shots to prevent tetanus, diphtheria, pertussis (whooping cough), and meningococcal disease. Girls should receive human papillomavirus vaccine.
- All adults (not just the elderly) need vaccines to protect them from severe illnesses.
- Many people need yearly influenza vaccine. Ask if you or one of your family members should get flu vaccine.

DCH-0592 (02/2007)

Authority: Act 368 1978

Keep track of the immunizations you and your child have received.

- Bring your immunization card to every medical visit. This is necessary for children and adults.
- Ask to have your card updated every time vaccines are given.
- The Michigan Care Improvement Registry (MCIR) keeps immunization records for Michigan residents. Ask if the vaccine you or your child received is entered in MCIR.
- Children must meet Michigan's immunization requirements to enroll in any nursery, day care, preschool or head start program, and public or non-public school.