

New York City VacScene

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New York City Department of Health and Mental Hygiene

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THE 2002 RECOMMENDED CHILDHOOD IMMUNIZATION SCHEDULE

The 2002 Recommended Childhood Immunization Schedule was released earlier this year (see insert). It has been approved by the Advisory Committee on Immunization Practices (www.cdc.gov/nip/acip), the American Academy of Pediatrics (www.aap.org) and the American Academy of Family Physicians (www.aafp.org). The significant changes are:

- All newborns are recommended to receive the first dose of Hepatitis B vaccine before hospital discharge
- Influenza vaccine is now included on the schedule
- Catch up schedules are clearly outlined:
 - Any child through 18 years of age who has not received the Hepatitis B series should be vaccinated
 - Any child who is over 12 months of age and who has not had varicella vaccine and for whom it is not medically contraindicated should be immunized; children 13 years of age and older receive 2 doses of vaccine given at least 4 weeks apart
 - Any teenager who has not had a second MMR and for whom it is not medically contraindicated should be vaccinated.

The use of combination vaccines is addressed in the Schedule footnotes.

Providers should note that New York State (NYS) Insurance Regulations require that any vaccine that appears on this schedule must be covered by any health insurance plan written in NYS.

SCHOOL REQUIREMENTS FOR HEPATITIS B

A New York State Hepatitis B vaccination requirement has been in place since 1998.

For the upcoming school year, 2002-2003, Hepatitis B vaccine will be required for:

Day care, Pre-K, K, and Grades 1, 2, 3, 4
(three pediatric doses)

Grade 7, 8, 9 and

all 12 year-olds in ungraded classes

(either 3 pediatric doses or 2 adult doses if between 11-15 yrs)

The Hepatitis B series is given as a three dose series. In 1999, the FDA approved a 2-dose Hepatitis B vaccine series for children aged 11-15 years only using the adult formulation (10µg /1.0ml) of Merck "Recombivax HB"*. Either regimen may be used for these adolescents.

Documentation of immunization with the 2-dose series must be provided and must clearly indicate use of "adult formulation", 1.0 ml, Merck" or "Recombivax HB, 1.0 ml" to distinguish adult vaccine from the pediatric series. If such documentation is missing, it will be assumed that all doses are pediatric and a three dose series is required.*

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About the 3-dose pediatric series:

- Three doses are given over no less than 4 months
- The minimum acceptable interval between the 1st and 2nd dose is 28 days
- The minimum acceptable interval between the 2nd and 3rd dose is 56 days

About the 2-dose adolescent series:

- The minimum acceptable interval between doses is 4 months
- Both doses must be given as the adult preparation. (A child who receives one adult and one pediatric dose would still need a 3rd dose of hepatitis B vaccine)

About both series:

- There is no need to restart the series when more than the recommended interval between doses has elapsed – simply complete the remaining dose(s)
- Children can be successfully immunized even if they have a minor illness such as an upper respiratory infection.

*The use of brand names does not imply endorsement of any product by the New York City Department of Health and Mental Hygiene.

HEPATITIS B PREVENTION IN THE NURSERY

Prior to the implementation of universal infant Hepatitis B vaccination in the U.S., an estimated 18,000 children under the age of 10 years were infected with Hepatitis B virus annually. About half of these children became infected through perinatal transmission; the remainder acquired their infection during early childhood through contact with other Hepatitis B surface antigen (HBsAg) positive persons (horizontal transmission). Ninety percent of infants who acquire Hepatitis B infection become chronic carriers, while 20-50% of children infected between 1 and 5 years of age will become chronic carriers. An estimated 15% to 25% of persons with chronic Hepatitis B infection will die prematurely of either cirrhosis or hepatocellular carcinoma.

In July 1999, the American Academy of Pediatrics and the U.S. Public Health Service jointly released a recommendation to reduce infant exposure to thimerosal. As a direct result of this recommendation, many newborn services changed their practices regarding the administration of Hepatitis B vaccine in the nursery and the routine vaccination of infants at birth was discontinued in many hospitals. Thimerosal-free vaccine was available for use in the nursery by mid-September 1999. However, many newborn services have not resumed routine Hepatitis B vaccination. The New York City Department of Health and Mental Hygiene (NYC DOHMH) encourages all birthing hospitals to review their policies regarding newborn Hepatitis B vaccine and to provide routine vaccination of all newborns as encouraged by the Recommended Childhood Immunization Schedule 2002.

Failure to identify infants born to HBsAg-positive mothers can result in severe adverse outcomes¹. In Michigan in December 1999, a 3-month old infant died of acute hepatic failure attributed to Hepatitis B infection. This death could have been prevented by vaccination. The infant was born to a mother who was found to be HBsAg-positive at an early prenatal visit but these records

were not available at the time of delivery. The infant was not vaccinated until two and a half months of age.

Evidence in other parts of the country suggests that changes in nursery policies and reduction in newborn Hepatitis B vaccination coverage have caused missed opportunities for vaccination among infants at high risk for perinatal infection, particularly among those born to untested and HBsAg-positive mothers.

Vigilance in the nursery can prevent vertical transmission of Hepatitis B. The NYC DOHMH's Perinatal Hepatitis B Prevention Program continues to assist in this process (see page 3).

Immunoprophylaxis for Premature Infants

A premature infant born to either a HBsAg-positive mother or a mother with unknown HBsAg status must receive immunoprophylaxis with Hepatitis B immune globulin (HBIG) and Hepatitis B vaccine within 12 hours of birth. If the infant weighs < 2,000 grams at birth, this initial vaccine dose should not be counted towards the completion of the Hepatitis B vaccine series; three additional doses of Hepatitis B vaccine should be administered, beginning when the infant is one month of age.

The optimal timing of the first dose of Hepatitis B vaccine for premature infants of HBsAg-negative mothers with a birth weight of >2,000 grams has not been determined. The CDC recommends that infants, if still in the hospital, receive the first dose of the Hepatitis B vaccine series at one month of age. Premature infants discharged from the hospital before the chronological age of one month should receive the first dose of Hepatitis B vaccine at the time of discharge as long as the infant is medically stable and has had consistent weight gain.²

1. CDC MMWR 2001;50:94-97.

2. CDC MMWR 2002;51(RR-2):18.

Hepatitis B Vaccine Schedule

For infants born to HBsAg positive or HBsAg unknown mothers:

Hepatitis B Immune Globulin (HBIG): within 12 hours of birth

- Dose 1:** within 12 hours of birth
- Dose 2:** at 1 month of age
- Dose 3:** at 6 months of age

*For premature infants weighing < 2000 grams at birth born to HBsAg-positive mothers, the initial birth dose should not be considered as part of the three dose series. A total of 4 doses of Hepatitis B vaccine are required.

For infants born to HBsAg negative mothers:

- Dose 1:** before discharge from birth hospital
- Dose 2:** at 1 to 2 months of age
- Dose 3:** at least 4 months after dose #2 and no earlier than 6 months of age

THE PERINATAL HEPATITIS B PROGRAM

New York State regulation requires that all pregnant women be screened for Hepatitis B surface antigen (HBsAg). The New York City Department of Health and Mental Hygiene (NYC DOHMH) Perinatal Hepatitis B Prevention Program of the Immunization Program, the largest program of its kind in the United States, has an active program to:

- ensure screening of all pregnant women for HBsAg and to identify those women who are HBsAg positive:
 - through active and passive surveillance of all hospital prenatal programs
 - through active and passive surveillance of all birthing hospitals
 - by verification of newborn screening results
 - through surveillance of all laboratories reporting HBsAg tests in pregnant women/mothers
 - through surveillance of providers to ensure reporting of all HBsAg positive tests
- to coordinate with hospitals and providers to ensure follow up of infants born to HBsAg positive mothers for immunization and post-vaccination serology
- to screen and immunize susceptible household and sexual contacts
- to provide education and counseling regarding Hepatitis B and the importance of Hepatitis B prevention.

During 2001, NYC hospitals reported 93,796 HBsAg test results in pregnant women/mothers; 1,449 of these were positive. The incidence rate of HBsAg positive test results in pregnant women/mothers in New York City is 1.5%, five times the estimated national average. This rate of HBsAg positivity has remained constant over the past eight years. In 2001, a total of 1,756 pregnant women were monitored by the Perinatal Hepatitis B Prevention Program to ensure proper management of the infants. Of the 493 household contacts who were tested in 2000, 132 were found to be susceptible to Hepatitis B. Of these, 82% completed the three-dose schedule of vaccine.

For additional information about the Perinatal Hepatitis B Program contact Mr. Davis Thanjan at 718-520-8245.

Surveillance

Physician reporting provides valuable clinical information that is needed to monitor disease trends and to implement timely public health interventions. Suspect cases of vaccine preventable diseases should be reported (1-866-NYC-DOH1); suspected measles cases should be reported immediately (1-212-676-2284).

After business hours, weekends and holidays please call The Poison Control Center (212-POISONS) or (1-800-222-1222)

Assistance with diagnostic testing, contact tracing and management, and case management is available.

Save the Date

Upcoming CDC Satellite Broadcast:

December 5, 2002
Surveillance of Vaccine Preventable Diseases
20 Washington Street
Room 1995

Upcoming meetings:

Friday, Sept. 13th and Friday, Dec. 13th
New York City Coalition for Immunization Initiatives
(Childhood/Adolescent)
125 Worth Street
Board Room-3rd floor
10AM-noon

Thursday, October 17th
Adult Immunization Coalition
125 Worth Street
Board Room-3rd floor
10AM-noon

IMMUNIZATION ASSESSMENTS

The New York City Department of Health and Mental Hygiene (NYC DOHMH) Immunization Program assesses immunization coverage for public clinics and private providers enrolled in the Vaccines For Children program. Since 1999, more than 160 assessments have been conducted.

Immunization coverage is counted as complete when the series of 4 DTP, 3 Polio, 1 MMR, 3 Hib, and 3 Hep B (4:3:1:3:3) are administered for a cohort of two year olds (24-35 months of age) by the second birthday. Average 4:3:1:3:3 series coverage for the practices assessed in 2001 was 63% (range 19%-97%). National Immunization Survey (NIS) data for this same series of vaccines in the year 2000 was 66.2% and 70.7% for the 4:3:1 (4 DTP, 3 Polio, and 1 MMR) series'.

Congratulations to Dr. Margaret Safo in Far Rockaway, Queens, Dr. Alisa Milman in Brooklyn and the Brownsville Child Health Clinic for attaining $\geq 90\%$ completion rates for 4:3:1:3:3 series. Kings County Hospital and Queens Hospital Pediatric Clinics, Gouverneur Diagnostic and Treatment Center and Roberto Clemente Center reached $\geq 90\%$ for the 4:3:1 series.

Since the goal is to improve coverage, the assessment team works with the providers who have less than 90% coverage. Based on the findings, practice specific strategies for improvement are recommended. Common barriers to immunization identified by the assessment team include mis-assessing a child as "up to date" for vaccines, chart documentation problems (especially lack of a flow sheet or use of multiple flow sheets), confusion about the immunization schedule, and patient drop-out. The team returns in 2-3 months to re-assess the charts of the children identified as under-immunized. By recalling these children, most providers significantly increase coverage for the patient cohort under review. The physicians appreciated the helpful suggestions to improve immunization coverage.

If you are interested in having an assessment, contact Karin Seastone Stern, Dr.PH, Director, Clinic Assessments, Immunization Program, NYC DOHMH at 212-676-2283.

NYC DEPARTMENT OF HEALTH AND MENTAL HYGIENE IMMUNIZATION PROGRAM

- Immunization Registry.....(212) 676-2323
- Vaccines for Children Program (VFC)(212) 676-2296
- Immunization Disease (Case) Reporting(212) 676-2288/84
after hours(212) POISONS
- Vaccine Adverse Event Reporting1-800-822-7967 or
(212) 676-2281
or www.vaers.org
- Immunization Medical Consultation.....(212) 676-2264
- Perinatal Hepatitis B Program(718) 520-8245
- Adult Immunization Initiatives(212) 676-9936
- Community Training and Educational Outreach ..(212) 676-2280
- Immunization Hotline.....(212) 676-2273
- Influenza Hotline1-866-FLULINE
- Immunization Program – all other inquiries(212) 676-2259

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