The Centers for Disease Control and Prevention (CDC) has issued an online summary of the seven major changes made by the Advisory Committee on Immunization Practices (ACIP) in the new "General Recommendations on Immunization," which were published on February 8, 2002. The General Recommendations were last published in 1994.

This summary will help immunizers navigate the new recommendations by highlighting the most significant additions and revisions.

The seven major changes summarized are as follows:

- No Vaccination Schedules
- 4-Day "Grace Period" for Timing and Spacing of Vaccines
- Guidance for Non-Simultaneous Administration of Live Vaccines
- Guidance for Non-Standard Route or Site of Administration
- Vaccination of Internationally Adopted Children
- Aspiration Before Injection
- Management of Preterm Infants Whose Mothers' HBsAg Status Is Unknown

Here is the full text of the Summary of Major Changes:

**NO VACCINATION SCHEDULES**

Unlike previous versions of the General Recommendations, this revision does not include vaccination schedules. Beginning in 1995, the Recommended Childhood Immunization Schedule has been published annually by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP). The 2002 schedule is available on the National Immunization Program website at [http://www.cdc.gov/nip/recs/child-schedule.htm](http://www.cdc.gov/nip/recs/child-schedule.htm).

**4-DAY GRACE PERIOD FOR TIMING AND SPACING OF VACCINES**

Since 1994, ACIP has recommended that doses of vaccine separated by less than the minimum interval should not be considered part of a primary series. ACIP continues to recommend that vaccine doses should not be given at intervals less than the minimum intervals or earlier than the minimum age. An extensive listing of recommended and minimum intervals and ages for vaccination is included in the document. In an effort to increase the flexibility of the complicated childhood immunization schedule, ACIP now recommends that vaccine doses administered up to four days before the minimum interval or age can be counted as valid. ACIP believes that administering a dose a few days earlier than the minimum interval or age is unlikely to have a significant negative effect on the immune response to that dose. This 4-day "grace period" should NOT be used when scheduling future vaccination visits. It should be used primarily when reviewing vaccination records. The 4-day "grace period" may also be useful in situations where a child visits a provider a few days earlier than a scheduled vaccination appointment. For example, if a child comes to the office or clinic for an ear check 27 days after his or her second DTaP dose, the provider could administer the third DTaP at that visit rather than having the child return for vaccination the next day.

State and local requirements in CT superecede the 4 day grace period recommendation. Physicians and other health care professionals must comply with all state vaccination requirements.

**NON-SIMULTANEOUS ADMINISTRATION OF LIVE VACCINES**

Since 1983, ACIP has recommended that whenever possible, live-virus vaccines not administered on the same day should be administered at least 30 days apart, because of concern that the vaccine given first could interfere with response to the vaccine given second. These concerns were based on two 1965 studies that indicated that recent measles vaccination reduced the response to smallpox vaccine. A study recently published in Morbidity and Mortality Weekly Report (MMWR 2001;50:1058-61) found that children who received varicella vaccine less than 30 days after MMR vaccination had a 2.5-fold increased risk of breakthrough varicella (i.e., varicella disease in a vaccinated person) compared with those who received varicella vaccine before, simultaneous with, or more than 30 days after MMR. Until now, ACIP has not provided guidance on the course of action if two live-virus vaccines were given less than 30 days apart. In the revised General Recommendations, ACIP recommends that if two live parenteral vaccines are given less than 28 days apart, the vaccine given second should not be counted as valid and should be repeated at least 4 weeks later. One exception to this recommendation is that yellow fever vaccine may be given at any time after measles vaccine.

**NON-STANDARD ROUTE OR SITE OF ADMINISTRATION**

In the 1994 revision of the General Recommendations, ACIP recommended that any vaccination using less than a standard dose or a nonstandard route or site of administration should not be counted, and the person should be revaccinated according to age. This recommendation was intended to discourage inappropriate vaccination practices, such as administration of half doses (a practice mostly associated with whole cell DTP vaccine), or inappropriate routes of vaccination (particularly the gluteus). This recommendation also led to repetition of some vaccine doses given by routes other than those recommended by the manufacturer, but whose route of administration probably had no significant effect on immunogenicity (for example, administration of MMR by the intramuscular route rather than the recommended subcutaneous route). In the revised General Recommendations, ACIP continues to strongly discourage variation from the recommended route, site, or dose of any vaccine. However, ACIP now recommends repeating doses only in cases where a reduction in immunogenicity has been demonstrated: rabies and hepatitis B vaccines administered in the gluteus, and hepatitis B vaccine administered by any route other than intramuscular injection (i.e., intradermal or subcutaneous injection).

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could be accepted as valid if they were documented by a written, dated record. There is conflicting information regarding the accuracy of vaccination records for internationally adopted children, particularly those adopted from orphanages in China, Russia, and other eastern European countries, and it is difficult to determine if a child is protected on the basis of their country of origin and their records alone. ACIP continues to recommend that vaccines received outside the United States can usually be accepted if there is written, dated documentation and the age, spacing and timing is comparable with that recommended in the United States. But it is especially important for the provider to carefully review the records of children adopted from orphanages, due to potential issues of authenticity. If there is any doubt about the validity of a vaccination record (for instance, doses dated before the child's birth or a record of receiving MMR or Hib vaccine, which are not commonly used in less developed countries), age-appropriate revaccination is generally recommended. Serologic testing may be considered if the parent or provider does not wish to repeat all doses, particularly for DTaP if three or more doses are documented. The General Recommendations provides guidance on selection and interpretation of these serologic tests.

ASPIRATION BEFORE INJECTION

Previous versions of the General Recommendations have recommended aspiration (i.e., gently pulling back on the plunger to check for blood before injection) prior to injection, particularly before intramuscular injection. No data exist to document the necessity of this procedure. The 2002 General Recommendations on Immunization does not recommend aspiration before injection.

MANAGEMENT OF PRETERM INFANTS WHOSE MOTHERS’ HBsAg STATUS IS UNKNOWN

Neither the current ACIP statement nor the 2002 schedule addresses hepatitis B post-exposure management of preterm (<2 kg) infants whose mothers' HBsAg status is unknown. The revised General Recommendations recommends that preterm infants whose mothers are HBsAg positive OR whose HBsAg status is unknown should be given both hepatitis B vaccine and HBIG within 12 hours of birth. For all preterm infants, the birth dose of hepatitis B vaccine should not be counted, and the infant should receive 3 additional doses at 1, 2, and 6 months of age. To see this Summary of Major Changes on CDC's website, go to: http://www.cdc.gov/nip/publications/genrecs.htm

* School entry requirements are not suspended at this time.
**REGISTRY UPDATE**

Immunization Status on 2nd Birthday of Children Enrolled in CIRTS

Date of Birth: January 1, 1998-December 31, 1998

<table>
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<tr>
<th>Schedule Used</th>
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<th>Up-to date in CIRTS</th>
<th>Total number children in CIRTS</th>
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<tr>
<td>HEDIS</td>
<td>1534</td>
<td>4804 (76%)</td>
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<tr>
<td>4,3,1</td>
<td>8007</td>
<td>22,541 (74%)</td>
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<tr>
<td>4,3,1,3,3</td>
<td>9007</td>
<td>21,541 (71%)</td>
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<tr>
<td>4,3,1,3,4</td>
<td>8007</td>
<td>22,541 (74%)</td>
<td>30,548</td>
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</table>

**1998 Children in CIRTS:**

- The 30,548 children represent 70% of the 43,741 births recorded in CT for 1998
- 15,485 or 50.7% of the 30,548 children enrolled in CIRTS were also enrolled in Medicaid
- 15,055 or 49.3% of the 30,548 children enrolled in CIRTS were not enrolled in Medicaid
- 1,249 or 4% of the 31,789 children on whom enrollment forms were received, refused registry participation

**HEDIS:**

4 DTP/DTaP, 3 polio, 1 MMR on or after 1st birthday, 2 HIB with one on or after 1st birthday, 2 Hepatitis with one on or after 6 months of age. Children must have been enrolled continuously in the same Managed Care Plan for 11 months prior to their second birthday. For this reason, the total number of children is less than in the other schedules which look at all children regardless of continuous enrolled in any particular insurance plan. This is the standard used by commercial and Medicaid insurance plans.

**4,3,1:**

4 DTP/DTaP, 3 polio, 1 MMR on or after first birthday. This is the standard traditionally used by CDC though CDC also now looks at rates which include hepatitis and HIB.

**4,3,1,3,3:**

4 DTP/DTaP, 3 polio, 1 MMR on or after first birthday, 3 Hepatitis, 3 HIB with one on or after 1st birthday. This standard takes into account those practices which use a a three dose HIB product. Since it also includes hepatitis and both MMR and HIB administered at age appropriate times, this is the rate which best reflects the standard set by the AAP, ACIP and AAFP.

**4,3,1,3,4:**

4 DTP/DTaP, 3 polio, 1 MMR on or after first birthday, 3 Hepatitis, 4 HIB. In some instances, this rate may be higher than the 4,3,1,3,3 because it does not take into account whether or not the last HIB was administered after the first birthday.

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**CDC’S UPCOMING LIVE SATELLITE COURSES**

**Immunization Encounters: Critical Issues**
June 27, 2002  12:00-2:00 PM

**Immunization Update 2002**
August 15, 2002  9:00-11:30 AM and 12:00-2:30 PM

Please call the State Immunization Program at (860) 509-7929 for the location nearest you
All courses are free, and continuing education is offered
Do you know who your field Epi is?

Regional Field Epidemiologists in the State Immunization Program work with day cares, schools, colleges, local health departments and hospital infectious disease programs to improve our public’s health. They:

- Conduct case investigations on suspected vaccine-preventable diseases
- Compile surveillance data on cases
- Conduct school retrospective surveys to determine immunization rates/compliance with immunization laws
- Conduct Vaccine For Children site visits to determine a practice’s observance of CDC standards of practice
- Conduct in-services upon request for organizations and institutions statewide

When you need assistance with these matters, call your regional field Epidemiologist at (860) 509-7929.

Region I (Lower Fairfield County)……………………………………………………………………………………………Heather Bohnwagner
Region II (Lower New Haven County)…………………………………………………………………………………….Mary Emerling
Region III (Tolland, Windham, Middlesex, & New London Counties)………………………………………………..Peter Lamb
Region IV (Hartford & Tolland Counties)…………………………………………………………………………………..Keri Gilford
Region V (Upper Fairfield, Upper New Haven & Litchfield Counties)……………………………………………….Susan Cavanna

REPORT ADVERSE EVENTS ON-LINE

The Vaccine Adverse Event Reporting System (VAERS), a cooperative program for vaccine safety of the Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA), announces the availability of a website for securely submitting vaccine adverse event reports via the internet. The website is located at www.vaers.org. Follow the link on the left hand side of the page labeled “VAERS Web Submission”.

VAERS collects information about possible side effects that occur after the administration of US licensed vaccines. Reports are welcome from all concerned individuals and organizations. Please review the online help for data entry before entering reports using the online system. Information identifying the person who received the vaccine will not be made available to the public. You and/or your health care provider may be contacted for follow-up information after your initial report is received. Information supplied on-line will be securely transmitted to VAERS using SSL.

You may obtain more information about the VAERS Program and download printable copies of the VAERS form from the following Internet Sites:
1. The VAERS Web site at www.vaers.org
2. The FDA’s Web site at www.fda.gov/cber/vaers/vaers.htm
3. The CDC Web site at www.cdc.gov/nip

All VAERS reports must be sent to: State of Connecticut
Department of Public Health
MS #11 MUN
Hartford, CT 06134

DEPARTMENT OF PUBLIC HEALTH
IMMUNIZATION PROGRAM
MORBIDITY REPORT

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Keeping Connecticut Healthy
410 Capitol Avenue, MS # 11 MUN
P.O. Box 340308
Hartford, CT 06134-0308
Phone: (860) 509-7929
www.dph.state.ct.us

Co-Editors: Carolann M. Kapur, MPA
Vincent Sacco, MS, Program Manager