The ITAT sharp shooter

SUMMER 2009

The newsletter of the Immunization Technical Assistance Team (ITAT), a partnership of leaders from various organizations who are dedicated to improving and maintaining maximum immunization rates utilizing practice-based interventions.

Required Vaccines: Getting Vaccine Ready for the 2009-10 School Year

By Jamie Damico, RN, MSN, CNS, Colorado Immunization Program

Summer is a time for vacations and play for many kids. It also can be a time when families prepare for the new school year, and getting those required immunizations prior to the beginning of the school year should be part of the preparation.

Physicians' practices and immunization clinics all over the state also are getting ready for the rush of kids that need to get their physicals and get those immunizations up to date. The purpose of this article is to provide a little guidance regarding **required** school immunizations and to clarify some of the confusing issues that seem to occur for both schools and provider offices and clinics.

One of the biggest points of confusion is defining the difference between "recommended" and "required" immunizations. The "recommended" vaccine schedule is the optimum schedule approved by the Advisory Committee on Immunization Practices (ACIP) and is an immunization "best practice" for protecting children against vaccine-preventable diseases. It typically is a more stringent schedule than Colorado's "required" vaccine schedule, and those health-care providers and clinics that administer vaccines following the ACIP guidelines are providing optimum coverage for Colorado's children. The "required" vaccine schedule includes those vaccines "minimally" required for school entry by the Colorado Board of Health. The "required" vaccine schedule can be located in Tables 1 & 2 in the "Rules of the Colorado Board of Health" located on the Colorado Immunization Program's Website under the section "Schools and Child Care settings." www.cdphe.state.co.us/dc/immunization

The required varicella vaccine is on a graduated schedule. For the 2009-10 school year, one dose will be required for students in third through ninth grades. Two doses are required at kindergarten, first, and second grades. The next question regarding varicella is documentation of chickenpox disease. A health-care provider diagnosis of disease or screening and documentation of history of chickenpox disease is required. For all children who have parent-reported cases of chickenpox disease noted on their current Certificate of Immunization prior to the 2007-2008 school year, that documentation of disease history will be accepted. All children new to the Colorado school system and all children who do not have chickenpox disease recorded on the Certificate of Immunization prior to the 2007-2008 school year must now have documentation of the disease by a health-care provider (physician or RN) or

See **SCHOOLS** *on page 2*

SCHOOLS *from page 1*

a laboratory confirmation showing immunity to the disease.

Since most physicians don't allow children with suspected cases of chickenpox to come into their offices, screening must be done to determine if the disease is truly chickenpox. If parents inform the school that their child has had the disease and there has been no physician documentation of the disease, the school nurse (RN) can complete the screening. CDC's descriptions of **primary** and **secondary** chickenpox disease should be helpful in the screening process.

Primary Infection (Chickenpox): In children, the rash often is the first sign of disease. The rash is generalized and itchy and progresses rapidly from macules to papules to vesicular lesions before crusting. The rash typically appears first on the head, then on the trunk and then the extremities; the highest concentration of lesions is on the trunk.

Lesions also occur on mucous membranes of the oropharynx, respiratory tract, vagina, conjunctiva, and cornea. Vesicles may rupture (clear liquid) or become purulent before they dry and crust. Healthy children usually have 200 to 500 lesions in two to four successive crops over several days. The clinical course is generally mild, with malaise, itching and a temperature up to 102 F for two to three days. (Epidemiology and Prevention of Vaccine-Preventable Diseases, 10th Edition, February 2008, page 175). Photos of chickenpox disease can be viewed at: www.cdphe.state.co.us/dc/epidemiology/Varicella

Breakthrough Disease: Breakthrough disease is defined as a case of infection with wild-type varicella zoster virus occurring more than 42 days after vaccination. Usually, the median number of skin lesions is fewer than 50 and the lesions are atypical, with papules that do not progress to vesicles. The duration of illness is shorter and there is lower incidence of fever. (MMWR, June 22, 2007/Vol. 56/ No. RR-4, page 14). The Centers for Disease Control recommend that a physician (or designee) verify history or diagnosis of atypical disease and include either an epidemiologic link to a typical varicella case or provide evidence of laboratory testing at the time of acute disease. When such documentation is lacking, a person should not be considered as having a valid history of disease because other diseases may mimic mild atypical varicella (Epidemiology and Prevention of Vaccine-Preventable Diseases, 10th Edition, January 2007, page 189). If a school nurse or public health nurse does not feel that the report of disease is reliable, provide education and refer to a clinic for vaccine.

Tdap is another required vaccine that may need some further explanation. Tdap will be required for all incoming sixth, seventh, eighth, and tenth, eleventh, twelfth graders in the 2009-10 school year. For students required to have the vaccination for school entry, Tdap must be given if it has been two years since the last Td vaccination was administered (or five years after a DTaP). Colorado has a high incidence of pertussis disease, and an adolescent with the disease can easily infect other children in the home (CDC reports that there is no absolute minimum interval between Td and Tdap). The following publication provides detailed information on Tdap: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5517a1.htm?s_cid=rr5517a1_e ★

Jefferson County Department of Health and Environment Outreach Project

By Christine Schmidt, RN, MS
Community Health Services Supervisor
Jefferson County Department of Health and Environment

The Jefferson County Department of Health and Environment has been conducting an immunization outreach project for the past several years that has worked very well for its community. The project consists of visits to childcare sites by public health nurses (PHNs) in which immunization records of enrolled children (birth through five years of age) are screened to ensure the records meet the Advisory Committee on Immunization Practices (ACIP) up-to-date requirements for age criteria.

Education, resource materials, and some technical assistance are given to childcare providers with information on how to set up a system to screen records and to ensure children are brought up to date through reminder/recall to parents. Follow-up is then conducted by the PHN on centers with less than 75 percent up-to-date (UTD) rates. Environmental health specialists monitor centers that continue to fall short of goal as part of licensure inspection visits. A database has been developed for tracking screenings and outcomes. By 2008, an average 17 percent improvement was seen in UTD rates in centers by the follow-up visit.

The health department immunization program also has conducted community promotions at three key points in the year – back-to-school time, influenza season, and National Infant Immunization Week (NIIW). The back-to-school promotions include education and information on new school requirements for Prevnar for childcare entry, second varicella for Kindergarten entry, and Tdap vaccine for all grades for which it applies. Promotions for influenza season focus on the recommendation for all children to receive flu vaccine. NIIW promotions focus on immunization for infants and people of all ages that care for infants, including parents, siblings, grandparents, teens as babysitters, and childcare providers. Incentives in the form of coupons for free immunizations are distributed, along with educational flyers and clinic access information at key childcare centers with large numbers of children not up to date.

Community partnering has been done with Rotary and Kiwanis clubs for promoting immunization and clinic resources and with Triad Early Childhood Council and Jefferson County Child Care Association for support of this project. There are more than 300 licensed childcare centers in Jefferson County.

For more information on this project, please contact Christine Schmidt at the Jefferson County Department of Health and Environment at (303) 239-7136. ★

Colorado VFC
VACCINES FOR CHILDREN

The VFC program is a federally funded and state-operated vaccine supply program that provides vaccines for eligible children without cost to the provider. For more information, please call Nicole Ortiz (303) 692-2334 at the Colorado Department of Public Health and Environment.

Measles: Vaccine Health Scare Puts Children at Risk

By Jamie Damico, RN, MSN, CNS
Colorado Immunization Program, Colorado Department of Public Health and Environment
Statistical data provided by Denise Stout of Vaccine-Preventable Disease

Measles is a contagious respiratory illness with the primary site of infection in the epithelial membrane of the nasopharynx. Measles can result in serious complications, such as pneumonia, encephalitis, and death. According to a report from the U. S. Centers for Disease Control and Prevention (CDC) and the World Health Organization, 197,000 people died worldwide from measles last year. Endemic measles disease was declared eliminated from the United States in 2000.

From January 1 through July 31, 2008, CDC received 131 reports of confirmed measles cases in the United States. Cases were reported from 15 states and the District of Columbia. Seven outbreaks (defined as three or more linked cases) accounted for 106 (81 percent) of the cases. Of the 131 total cases, 17 (13 percent) were importations, 99 (76 percent) were associated with importation, and 15 (11 percent) had an undetermined source of infection. Most (91 percent) of the 131 case-patients were unvaccinated or of unknown vaccination status.

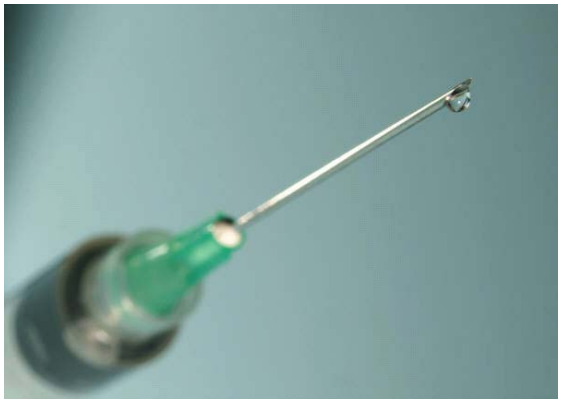
More than 90 percent of the U.S. residents with measles in the first seven months of 2008 were unvaccinated (80 percent) or their vaccination status was unknown (12 percent). Fifteen measles cases, including four children under 15 months of age, were hospitalized during the first seven months of 2008. Many of the un-immunized cases were children whose parents chose not to have them vaccinated. In the past 10 years, there were only four measles cases reported in Colorado, with the last case being reported during 2006.

The MMR vaccine has been an effective vaccine against the measles, mumps, and rubella. During the 1960s, the separate antigens were licensed, and in 1971, MMR was available as a live vaccine. The efficacy is over 99 percent for measles and 95 percent for mumps and rubella. Immunity is believed to be life-long and two doses are recommended, the first dose to be administered between 12 and 15 months of age and the second dose is typically given at 4 to 6 years of age.

Fears about vaccine safety have been fueled by anti-vaccine groups as well as professionals who have published papers or books questioning the safety of vaccines. The discredited work of Dr. Andrew Wakefield, who hypothesized in 1998 that MMR caused autism, may still influence the decisions of some parents and certainly has created confusion about the safety of the MMR vaccine.

Dr. Robert Sears, in his publication, *The Vaccine Book: Making the Right Decision for Your Child*, frequently perpetuates the distrust and misgivings parents may experience when trying to find answers to their vaccine questions. He suggests that parents have measles, mumps, and rubella administered as separate antigens, each antigen separated by one year. He neglects to explain that this places children at risk of contracting disease, as has been demonstrated in the 2008 outbreak of measles in the United States and other countries.

Addressing parents' questions and concerns regarding vaccine safety can be challenging, yet can promote the trust and collaboration that parents may be seeking when making decisions about their child's health. Citing outbreaks, such as the measles outbreak that occurred in 2008, can provide the rationale and the reason for properly immunizing children and protecting them from measles or any other vaccine-preventable disease.



*See **MEASLES** on page 5*

MEASLES *from page 4*

Required MMR Schedule for Colorado School Entry

Colorado School Entry Law requires that all students in kindergarten through 12th grade have two appropriately spaced MMR vaccines to protect against measles, mumps, and rubella. Children attending childcare are required to have their first MMR by15 months of age, typically on or after their first birthday. The minimum interval between those two doses of MMR vaccine is four weeks. One of the issues reported to the Colorado Immunization Program is that some children are receiving the first dose of vaccine before the one-year-of-age requirement. According to the School Immunization Law, if that vaccine is administered more than four days before a child's first birthday, it is not considered a valid dose and must be repeated. The vaccine licensed in the United States for the prevention of measles, mumps, and rubella is MMR and is manufactured by Merck & Co., Inc. The dosage is 0.5cc and is administered subcutaneously.

References:

http://www.cdc.gov/print.do?url=http://www.cdc.gov/vaccines/pubs/providers-guide-parents-questioning-vacc.htm Provider's Guide

Offit, P. and Moser, C (2009). The Problem with Dr. Bob's Alternative Vaccine Schedule. *Pediatrics*, 123, e164-e169.

Sears, R. W., (2007). The Vaccine Book: Making the Right Decision for Your Child. New York: Little, Brown & Company.

Colorado Immunization Program's New Logo

The Colorado Department of Public Health and Environment's Immunization Program recently unveiled its new logo. The goal was to create a recognizable logo that would encompass the various projects and activities of the overall program, including the Colorado Adult Immunization Coalition, the Vaccines for Children Program, and the Colorado Immunization Information System. The logo symbolizes the circle of protection for individuals and families (represented by the houses) and for communities throughout Colorado (represented by the mountains). The colors were inspired by the Colorado state flag.

SAVE THE DATE!

Epidemiology and Prevention of Vaccine-Preventable Diseases Course Presented by CDC Staff in Person!

Mark your calendars for November 16 & 17, 2009

This live 2-day course provides a comprehensive review of immunization, vaccine-preventable diseases and their respective vaccines.

TARGET AUDIENCE: Physicians, nurses, nursing students, medical assistants, pharmacists, immunization program managers, health educators, and other health professionals who provide immunizations.

Additional information is available at: www.cdphe.state.co.us/dc/immunization

Coalition Corner

Colorado Coalition for Travel Health Professionals

By Mette Riis, RN, BSN, MSW
Nursing Program Manager
Denver Health Immunization and Travel Clinic

Travel medicine is a frontier specialty and encompasses a broad body of knowledge. This specialty has become increasingly complex and highly specialized. It encompasses health promotion and disease identification, prevention, and treatment for people who are traveling internationally, particularly to underdeveloped countries and tropical areas. These travel destinations have myriad health, communicable disease, and safety concerns. More and more people are traveling for business, vacations, mission work, etc. And, more people who are elderly, infirm, or have complex illnesses are traveling overseas. Due to periodic shortage of vaccines, best practice management of vaccines is essential in times of shortage.

Travel health professionals must have knowledge of broad health issues to effectively serve travelers and ensure safe and healthy travel.

There are many travel clinics and travel health resources throughout Colorado. Some clinics are private companies and others are either university-based or services provided within county public health departments. Each clinic provides various levels of expertise and services. The Coalition for Travel Health Professionals was developed in 2008 by the Denver Health Travel Clinic. The first meeting was October 17, 2008. The goal of the Coalition is to provide a forum for:

- travel professionals to connect and assist each other and share expertise;
- unbiased information-sharing for healthy and safe travel;
- presentation and discussion of complex cases;
- development of standards of practice to ensure safe travel and prevention of illness and communicable diseases overseas and importation to the United States;
- dissemination of up-to-date travel health information on immunizations, health issues, and treatment interventions;
- provision of travel medicine education locally and nationally;
- communication of up-to-date travel health information from the CDC, state, and other regulatory agencies;
- Development of local and state travel health promotion through publications, Website design, etc., to promote travel health as a value-added service for the community.

The mission of the Coalition is **"To promote awareness and education about travel health and safety."** There are two Coalition committees:

- The Education Committee arranges for speakers, provides notification of education resources, and provides opportunities for case study presentation.
- The Awareness Committee acts as an advisory group to the Colorado Department of Public Health and Environment so it can effectively get the word out to the public through its Website about travel resources, health, and safety.

Meetings are held quarterly on the Denver Health campus, which is a central location in Colorado. Professionals such as nurses, doctors, pharmacists, travel clinic administrators, and others from travel programs in Colorado are welcome to participate.

The next meeting is July 17, 2009 from 9:30 to 11:30 a.m. at Denver Public Health.

To find out more about the Colorado Coalition for Travel Health Professionals, contact Mette Riis at mette.riis@dhha.org. ★

ASK THE EXPERTS

The column in The ITAT Sharp Shooter *newsletter that allows you to get your questions answered by the professionals. We hope its content will be both informative and helpful.*

Q: ***A 60-year-old patient was given varicella vaccine instead of zoster vaccine. Should the patient still be given the zoster vaccine? If so, how long of an interval should occur between the two doses?***

A: The Advisory Committee of Immunization Practices (ACIP) states the following: "If a provider mistakenly administers varicella vaccine to a person for whom zoster vaccine is indicated, no specific safety concerns exist, but the dose should not be considered valid and the patient should be administered a dose of zoster vaccine during that same visit. If the error is not immediately detected, a dose of zoster vaccine should be administered as soon as possible but not within 28 days of the varicella vaccine dose to prevent potential interference of 2 doses of live attenuated virus."

Answered by www.immunize.org

Q: ***If a college student previously had two pediatric doses of hepatitis A vaccine, does he or she need a third dose as an adult?***

A: No. A person is considered immune as long as she or he received two age-appropriate doses of hepatitis A vaccine (given at least six months apart) prior to age 19 years. There is no "booster" dose recommended.

Answered by www.immunize.org

Q: ***We have a child who came from another practice and was given hepatitis B at birth, 1 month, and 4 months. He has three doses, and the spacing between dose 2 and dose 3 is eight weeks. Does this child need an additional dose?***

A: Yes. The minimum interval was not met between dose 1 and dose 3 (four months or 16 weeks), and the minimum age for dose 3 is 24 weeks, which was not met. This child should get one more dose eight weeks after the previous dose.

Answered by Lynn Trefren, RN, MSN
Tri-County Health Department

Q: ***Can the parents of a newborn receive a dose of Tdap right after their child's birth to protect themselves and, indirectly, their newborn from pertussis, even though they had a dose of Td vaccine less than two years ago?***

A: Yes. Parents should receive a single dose of Tdap as soon as possible to protect the baby from pertussis. If a dose of Td was given within the previous two years, parents should still be vaccinated with Tdap as soon as possible regardless of the time interval since the last dose of Td. Other household contacts who are not up-to-date with their pertussis-containing vaccinations should also be appropriately vaccinated.

Answered by www.immunize.org

We are going green!

In an effort to save paper, the *Sharpshooter* Newsletter is now available via email. If you would like to receive your copy of the *Sharpshooter* Newsletter via email, please send a request to ccicoffice@tchden.org .

Thank you!

Feature Articles

- **Required Vaccines: Getting Ready for the 2009-10 School Year**
- **Jefferson County Department of Health and Environment Outreach Project**
- **Measles: Vaccine Health Scare Puts Children at Risk**
- **Coalition Corner**
- **Ask the Experts**

This Summer edition of *The ITAT Sharp Shooter* also includes important updates and announcements listed throughout.

For questions or information about this *Sharp Shooter* Newsletter and/or the ITAT workgroup, please contact Karen Willeke, Colorado Department of Public Health and Environment Immunization Program at (970) 246-0151 or kwilleke@wildblue.net.

the ITAT sharp shooter

Special thanks to The ITAT Sharp Shooter Editorial Board

Donald Cook, MD
Past President
American Academy of Pediatrics
Greeley, CO

Kate Lujan, RN, MPH
Field Epidemiologist
Colorado Department of Public Health and Environment
Western Slope

Mark Salley
Colorado Department of Public Health and Environment
Denver, CO

Opal Stalker, RN
Montezuma County Health Department
Cortez, CO

Jan Stapleman
Colorado Department of Public Health and Environment
Denver, CO

Lynn Trefren, MS, RN
Nurse Manager
Tri-County Health Department
Aurora, CO

This newsletter should be directed to all staff involved in immunizations including:

___ clerical and billing staff
___RNs
___LPNs
___MAs
___MDs
___PAs
___NPs
___DOs
___Clinical Director or Clinical Manager