

# Hepatitis A Vaccine

The CDC has recommended that Hepatitis A vaccine be given to all children in eleven states—including New Mexico—that have a higher than average incidence of infection with the virus.

The Hepatitis A virus (HAV) spreads easily in childcare settings and in the home, especially when kids in diapers are present. Generally, it's transmitted through the fecal-oral route. For instance, if an infected person goes to the restroom, doesn't do a good job of washing his hands, then prepares a salad for lunch, he could infect all those who eat that salad. I'm sure you have noticed in public restrooms that an unfortunate number of people fail to wash their hands before they leave. When infected human waste gets into the water it can contaminate the shellfish we eat. And, you no doubt remember just recently the large outbreak traced to imported green onions.

People of any age infected with HAV can be contagious for several days before showing signs of the disease. Little kids are easily infected, but they often don't have severe symptoms, and may show none at all. However, they can infect those around them, who may have much more severe disease. According to the AAP Red Book, those symptoms can include jaundice, anorexia, nausea, and malaise.

No matter where you live, anyone over

two years of age who has a chronic liver disease, such as hepatitis B or C, cirrhosis of the liver, or who is immunocompromised should receive Hepatitis A vaccine.

Hepatitis A vaccine is a very safe and effective vaccine, and causes few, if any adverse reactions. It is a killed-virus vaccine, and is given intramuscularly in two doses, at least six months apart. It is only approved for children over the age of two years. There is also a new vaccine called Twinrix, which combines Hepatitis A & B vaccines. It is given in three doses over 6 to 12 months, and is only approved for use in people over the age of 18 years.

In District One Public Health, we offer Hepatitis A vaccine to all the children whom we immunize. This strategy seems to be working, as our rates of the disease have declined in recent years.

**"Immunization refers to the process of acquiring immunity, whereas vaccination refers to the administration of vaccines."**

## Lessening the Pain of Vaccines

*For most children, getting vaccines means the pain of getting a shot. Although pain is to some extent unavoidable, there are a few things worth trying in older children.*

### **Blowing away the pain**

One technique is called "blowing away the pain." Just before the shot, take out a feather, tell the child to take a deep breath, closing his eyes if he wants, and then blow out...blow, and blow on the feather until you or the nurse tells them to stop. The distraction of blowing on the feather has been shown in one study to lessen the amount of pain perceived by the child.

### **Cold versus pain**

Another idea is to swab a small amount of alcohol on the forearm that will receive the vaccine. The child then blows on the alcohol before and during the shot. Our bodies don't feel cold and pain in the same place at the same time. Rather, when confronted with the choice of cold or pain, the body picks cold. So the feeling of pain from the shot will be reduced.

## Imported Measles Result of Vaccine Exemption

In early March, a group of approximately 30 students and supervisors from a college in Iowa traveled to India, where approximately 52,000 cases of measles were reported in 2002. It is reported that a large number of the students at the college had obtained non-medical exemptions to vaccination. While they were in India, six cases of measles occurred in the group of students. Hoping to avoid possible spread during transit, the Iowa Department of Health (IDPH) recommended that those infected remain in India for at least 4 days after the onset of the rash. The IDPH also recommended that unvaccinated contacts of those infected remain in India for 18 days after the last possible exposure. Despite these recommendations, one of the exposed unvaccinated students returned to the United States early, flying on March 12th from New Delhi through Amsterdam, Detroit, and on into Cedar Rapids, Iowa. While he was traveling, he exhibited a cough and conjunctivitis, and within 24 hours of his arrival in Iowa he developed a rash. Measles was confirmed serologically.

On March 18th, CDC issued a health advisory recommending that every person who had been on the plane with the students, or who had been in one of the involved airports at the same time be evaluated, and if indicated, prophylaxed with immune globulin and/or vaccinated.

The fact that six cases of measles occurred in this group of students illustrates the high transmissibility of measles to susceptible persons. Most states require two doses of a measles-containing vaccine for children attending school, including post-secondary schools; however, non-medical exemptions are permitted in certain states (including New Mexico). People who have chosen to claim a non-medical exemption from vaccination are more than 22 times more likely to acquire measles than persons who are vaccinated. In addition, the risk to others who may have had a sub-optimal response to vaccine, or who cannot be vaccinated for medical reasons or age is very high.

Measles remains endemic or epidemic in many parts of the world, and for that reason the Advisory Committee on Immunization Practices (ACIP) recommends that all international travelers be immune to measles.

This case demonstrates the importance of following the ACIP recommendations, and emphasizes the impact on the public at large of non-medical immunization exemptions. Providers and others who counsel parents about such exemptions should ensure that the parents understand the risk that opting out of vaccination places upon their children, as well as on the general public and the public health system.

*Source: MMWR Dispatch, March 19, 2004*



## Modified Prevnar Schedule During Shortage

On February 13, 2004, CDC recommended that health-care providers temporarily suspend routine use of the fourth dose of 7-valent pneumococcal conjugate vaccine (PCV7) when vaccinating healthy children. This action was taken to conserve vaccine and minimize the likelihood of shortages until Wyeth Vaccines, the only U.S. supplier of PCV7 (marketed as Prevnar), restores sufficient production capacity to meet the national need. Since that recommendation, PCV7 production has been much less than expected because of continuing problems with the PCV7 vial-filling production line. Shipments have been delayed, resulting in spot shortages that might continue beyond summer 2004 and become widespread. Effective immediately, to further conserve vaccine, CDC recommends that all health-care providers temporarily suspend routine administration of both the third and fourth doses to healthy children. Health-care providers should continue to administer the routine 4-dose series to children at increased risk for severe disease, including children with sickle cell disease and other hemoglobinopathies, anatomic asplenia, chronic diseases (e.g., chronic cardiac and pulmonary disease and diabetes), cerebrospinal fluid leak, human immunodeficiency virus infection and other immunocompromising conditions, immunosuppressive chemotherapy or long-term systemic corticosteroid use; children who have undergone

solid organ transplantation, and children who either have received or will receive cochlear implants. All these children have been identified as being at either "high risk" or "presumed high risk" for severe invasive pneumococcal disease. Unvaccinated, healthy children aged 12-23 months should receive a single dose of PCV7. For children aged >2 years, PCV7 is not recommended routinely.

Healthcare providers should maintain lists of children for whom conjugate vaccine has been deferred so it can be administered when the supply allows. The highest priority for vaccination among children who have been deferred is children vaccinated with <2 doses who are aged <1 year.

This recommendation reflects CDC's assessment of the existing national PCV7 supply and will be changed if the supply changes. Updated information about the national PCV7 supply is available from CDC at <http://www.cdc.gov/nip/news/shortages/default.htm>

Although limited data support a 2-dose schedule among infants, this regimen is preferable to vaccinating certain children with 3 doses and not vaccinating others. Because PCV7 is a new vaccine, no long-term data on vaccine effectiveness are available. However, the incidence of invasive pneumococcal disease declines rapidly after age 2 years, even in unvaccinated children.

Source: *MMWR*

## MMR Study Flawed

LONDON (Reuters) Mar 04 - Last week, The Lancet announced that undisclosed conflicts of interest would have caused it to weigh the "suitability, credibility, and validity" of the 1998 paper by Dr. Andrew Wakefield et al on a purported link between measles-mumps-rubella (MMR) vaccination and autism.

Now, ten co-authors of the controversial study said on Wednesday there was not enough evidence to conclude that that MMR vaccination

might cause autism.

The release of the report in 1998 led to a steep drop in the number of British children being vaccinated, which has been blamed for outbreaks of measles.

**Connecticut has the highest percentage of children who are current on their immunizations (96%). Colorado is the lowest, at 65%**

# WIC Efforts Recognized

## By Carol Horwitz, GAIN Coordinator

The New Mexico Women, Infants and Children Program have been working diligently to improve immunization rates among New Mexico’s children. To this end they, with support from the New Mexico Department of Health Immunization Program, have developed a “pop-up” IZ record reminder system for each WIC client. WIC clients are requested to bring their child’s IZ record to each visit. Providers input data from the records, track IZ rates and determine who is behind. Referrals are made as needed. Clients who comply receive two months worth of WIC benefits. Clients who forget receive only one month’s worth of benefits. This system is being applied to approximately 60,500 clients PER MONTH, 7000 in Albuquerque alone. The entire system is a win/win, immunization consciousness-raising situation. Providers learn to read IZ records. Clients receive extended benefits. Most importantly, children receive needed immunizations.

The Secretary of the Department of Health, Dr. Eaton, Director of the UNM HSC, the Greater Albuquerque Immunization Net-

work (GAIN) and the New Mexico Immunization Coalition (NMIC) will be recognizing this effort at the NMIC Statewide Provider Awards Reception and Lecture, Monday, April 19 starting at 7:00 pm at the Albuquerque Hilton. The following letter has been sent out to the Greater Albuquerque Area WIC providers:

*“The Office of the First Lady, Barbara Richardson, the New Mexico Immunization Coalition and the Greater Albuquerque Immunization Network commends the outstanding efforts by WIC providers to improve immunization rates in the State of New Mexico. In appreciation and recognition for your efforts we would like to invite you to an Immunization Awards Ceremony, Monday, April 19 beginning at 7:00 p.m. at the Albuquerque Hilton. Dr. Bill Atkinson from the Centers for Disease Control and Prevention will give a talk on immunizations, “Childhood Immunizations: Moving New Mexico from 43<sup>rd</sup> to 1<sup>st</sup>.” Notable immunization providers and advocates from around the state, such as WIC, will be honored. Delicious refreshments will also be provided. This evening promises to be educational and exiting.”*

## Vaccination “Graduation”

Parents may soon face another slew of immunization for the children, but this time in older children. Parents are accustomed to the fact that their infants need a number of immunizations, but drug companies are working hard to develop vaccines for the prevention of a number of diseases that commonly infect older children or count adults. These diseases are commonly transmitted while living in close quarters such as dormitories, by sexual contact, or while traveling.

Some experts believe that within the next 8 to 10 years, vaccines will exist for the

prevention of genital herpes; papillomaviruses; cytomegalovirus; meningitits B; whooping cough in adults; and commonly-acquired bacterial diseases contracted in hospitals or through travel.

### Illness Etiquette

In the wake of SARS, and the past year’s early influenza season, medical authorities hope a new realization that *staying home when ill is the socially conscious thing to do* will prevail. Be courteous to your co-workers, and kind to yourself: ***when you’re sick, stay home!***

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Q&A

**Q I've noted that more adults are being diagnosed with pertussis. When will we see a pertussis vaccine licensed for adults?**

**A.** It's likely there will be a product licensed for older children and adults in the future. This vaccine is already available in Canada and is being studied in the U.S. If the Food and Drug Administration approves the vaccine, ACIP will then make recommendations regarding the use of the vaccine, including who should receive it, and how often.

**Q. If a child less than 9 years of age receiving influenza vaccine for the first time doesn't return for the second dose, how many doses should he or she receive in the next year?**

**A.** The first dose will count as the "priming" dose, so in subsequent years the child will only need one dose.

**Q. If a child develops a rash after receiving varicella vaccination, does he need to be isolated from susceptible persons who are either pregnant or immunosuppressed?**

**A.** Transmission of varicella vaccine virus is rare. However, if a pregnant or immunosuppressed household contact of a vaccinated child is known to be susceptible to varicella, and if the vaccinated child develops a rash, it is prudent to avoid close contact between the child and the susceptible person until the rash resolves.

**Q. What are the ages for adults to begin using adult formulations of hepatitis A and B vaccines?**

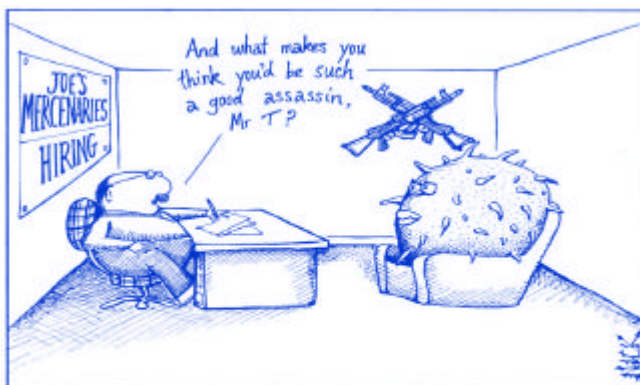
**A.** The adult hepatitis A vaccine dosage is indicated for adults 19 years of age and older. The adult hepatitis B dosage is indicated for adults 20 years of age and older. Twinrix (hepatitis A and B combination) is licensed for use in persons 18 years of age and older.

**Q If a child has fallen behind on their immunizations, can combination vaccines be used on an accelerated schedule? If so, how?**

**A.** Combination vaccines may be used when any component of the vaccine is indicated, and none of the components are contraindicated. The minimum interval should conform to the component that has the longest minimum interval.

**Q What should be done if a vaccine is inadvertently administered by the wrong route, i.e., a subcutaneous vaccine given intramuscularly?**

**A** Although recommended routes of administration should always be used, in most cases the vaccine may be counted as a valid dose. The two exceptions are rabies vaccine and hepatitis B vaccine; if either are given by any route other than IM, the dose should not be counted as valid, and should be repeated.



As each disease is finally eradicated, redundant lymphocytes increasingly find themselves looking for other work.

## Farewell

This will be my final edition of "Straight Shots". At the end of April I will be retiring from Public Health, and I am looking forward to doing some traveling and some volunteer work.

I have enjoyed my tenure with the Department, and have certainly learned a lot. I will probably maintain some level of involvement with public health, but it will be wonderful to be able to do so on my own schedule!