

Too Many Vaccines?

The 2010 immunization schedule for children includes ten different vaccines that protect against 14 diseases. These vaccines prevent childhood diseases that are not well-controlled in the US or have seen some resurgence, including varicella, pertussis, hepatitis B, influenza, measles, mumps, *Streptococcus pneumoniae*, and *Haemophilus influenzae* type b (Hib). The vaccines also protect against diseases that are still common in other parts of the world but have been nearly eradicated in the US (diphtheria, tetanus, polio and rubella).

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Despite the protection from multiple diseases and their sequelae, there has been a significant increase in concerns voiced by parents that there are too many vaccines, scheduled too soon. For many, this concern has been validated by misinformation in the popular media and has led to an increase in requests for alternative or reduced vaccine schedules. The use of alternative schedules is not evidence-based, often leads to more injections for children and places the children and their families at unnecessary risk for vaccine preventable diseases.

One of the concerns often cited for delaying immunizations is that the number of vaccines might overwhelm the immune system and lead to adverse effects later in childhood. In reality, from the time babies leave the womb they are colonized with trillions of bacteria, requiring them to constantly make antibodies to protect themselves from infection. Children are also exposed to a variety of viruses that cause runny noses, congestion, cough, fever and diarrhea. The immunological components in vaccines today are miniscule compared with the immunological challenges that infants handle everyday.¹

Although children receive more vaccines now than ever before, the number of immunological components in vaccines has dramatically decreased. Thirty years ago children received 7 vaccines that contained more than 3,000 bacterial and viral proteins. Today, there are only about 150 immunological components in 14 vaccines.

Another concern is that vaccines may cause developmental problems later in childhood. Recent research compared neuropsychological outcomes at 7-10 years of age for children who received recommended vaccines on time during the first year of life to children whose immunizations were delayed or never received. Findings clearly indicated that timely vaccination during infancy has no adverse effects on neuropsychological outcomes.²

Parents need easy access to accurate, up-to-date information on which to base decisions regarding immunization of their children. The importance of information and assurances from health care providers cannot be overstated as the key to addressing parental doubts about vaccinations.³ It is also essential that new parents receive timely information via multiple channels. The Immunization Program has developed a portfolio of up-to-date patient education resources for use in provider practices and is working to enhance public communication efforts. By working together, we can assure parents have answers to their questions.

¹ Children's Hospital of Philadelphia. Q&A Too many vaccines? What you should know. Vol. 1, Fall 2008.

² Smith MJ and Woods CR, *Pediatrics* 2010;125(6):1134-1141.

³ Gust DA et al, Parents with Doubts about Vaccines: Which Vaccines and Reasons Why. *Pediatrics*;2008 (122)718-725.

Protect Teens from Meningitis

For adolescents summer brings freedom from school, more time with friends and for many, summer camp. Preparations for summer camp should include making sure teens are up to date on their immunizations. Meningococcal vaccine (MCV4) is recommended as a routine vaccination for 11-12 year olds and for any adolescent who has not previously been immunized. Activities that may occur at summer camp such as living in close quarters and the sharing personal items, such as water bottles and utensils, puts adolescents at increased risk for meningococcal infection.

While meningococcal meningitis is rare, it can be fatal. Up to 2,600 Americans get infected with meningococcal disease each year, leading to death in 10%-15% of all cases.¹ Those who survive meningococcal disease often suffer from serious long term effects such as hearing loss, neurological damage or limb amputation. Vaccination against meningitis protects against four of the five most common serogroups of meningococcal bacteria, making immunization the most effective way to prevent the disease. According to the National Immunization Survey-Teen data, only 20% of Vermont children 13-17 years were vaccinated against meningitis. Vermont had the 4th lowest rate in the nation.² The Immunization Program offers MCV4 (also known by the brand name Menactra) to all VFC enrolled provider offices free of charge. Please be sure to vaccinate your adolescent patients against meningitis.

More information on meningococcal disease and immunization can be found at:

- Centers for Disease Control and Prevention. <http://www.cdc.gov/meningitis/index.html>
- National Foundation for Infectious Diseases. <http://www.nfid.org/meningitis/>

¹ Meningococcal Vaccine Information Statement; <http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-mening.pdf>

² National Immunization Survey (NIS) Data 2006-2008.

Become an Adult Vaccine Champion

Adults don't stop needing vaccinations when they reach maturity. Even if they were once fully vaccinated as children, risk factors and vaccine needs change, new vaccines become available, and some old vaccine protection wanes. Vaccines are safer than ever before, but unfortunately, many adult Vermonters are not up to date on the vaccinations that can prevent serious illness and early death.

VDH can help you to provide valuable immunizations to your patients aged 19 and up, but your effort is essential for Vermont residents to have good vaccine coverage rates. The Department invites you to enroll your family or internal medicine practice in the Vaccines for Adults (VFA) program. Through VFA, the Immunization Program can provide several adult antigens free of charge for Vermont residents. It's easy to enroll, just use the VFC/VFA Enrollment Form posted on the Immunization Program website, <http://healthvermont.gov/hc/imm/provider.aspx#schedule>.

Once enrolled, you can order ACIP recommended adult vaccines that provide protection from tetanus, diphtheria, pertussis, human papilloma virus (HPV), pneumococcal disease and hepatitis A and B. Using a scheduled ordering system your office can maintain a supply of publicly funded vaccines, and you'll be ready to provide important preventive care whenever an adult patient is found to be due (or past due) for a shot. You or your staff can consult with a local public health nurse who will assist you to develop a simple office plan for vaccine storage and management. The public health nurse has information and resources to make use of every opportunity to immunize and prevent serious diseases.

If you are already enrolled in VFA, but you are only using one or two of the vaccines available, isn't it time to consider more? Giving all vaccinations on time is a simple way that you can save lives every day.



Improve Vaccination Coverage Using the Registry

Did you know the Immunization Registry provides access to reports on vaccination coverage rates for your entire practice as well as individuals?

At the practice level, the PRACTICE VIEW: VACCINE COVERAGE report will display the 4:3:1:3:3:1 coverage rates for children in your practice. It also gives a breakdown of each series, so you can see patterns of which vaccinations are being missed. To view patients ages 24 to 36 months for June 2010, use DOB 6/2/07 to 6/1/08.

You can also run the VACCINES DUE report, which will display a list of patients in your practice who are not up to date, and will specify which immunizations they are missing. We recommend running this for limited age ranges, like 24 to 36 months, or 4 to 6 year olds.

If the reports include a child who is no longer your patient, you can change the child's primary practice to their new provider if you know that information or to "Moved or Gone Elsewhere" practice if you do not.

Reminder recall notices are a recommended strategy to ensure children are up-to-date with vaccinations. The transfer of the recall/reminder postcard mailing from the Immunization Program to individual provider practices in 2007 resulted in a reduction in the use of reminder postcards. The Immunization Program conferred with the Immunization Advisory committee and is planning to transfer responsibility for mailing of immunization reminder notes back to the central office. This will allow practices to concentrate their efforts on other recommended activities such as callbacks for not up-to-date for a specific antigen or catch-up doses.

If you need help running reports, please call the Immunization Registry support line at (888) 688-4667. Also, "how to" guides are posted on the Immunization Registry home page. If you have suggestions for other reports that will help your practice, please let us know.

Ask the Experts: Vaccine specific Q's and A's answered by CDC experts

Acquired from <http://www.immunize.org/express/issue871.asp#n1> on June 7, 2010.

Question: Many children in my practice have received their complete series of 7-valent pneumococcal conjugate vaccine (PCV7). Would you please review the recommendations for which of them now need a supplemental dose of 13-valent pneumococcal conjugate vaccine (PCV13)?

Answer: A single supplemental dose of PCV13 is recommended for all children ages 14 through 59 months who have received the complete 4-dose series of PCV7 or another age-appropriate, complete PCV7 schedule. For children who have underlying medical conditions, a single supplemental PCV13 dose is recommended through age 71 months. This also includes children who have previously received pneumococcal polysaccharide vaccine (PPSV23). Give the single supplemental dose of PCV13 no sooner than 8 weeks after the last dose of PCV7 or PPSV23 was given.

IAC has created a table that explains how to use PCV13 to catch up children who have fallen behind on their PCV7 doses. It's available at <http://www.immunize.org/catg.d/p2016.pdf>

Question: Will MCV4 provide protection against all serogroups?

Answer: No. The conjugate vaccine, like the polysaccharide vaccine, contains antigen for serogroups A, C, Y, and W-135. Serogroups C and Y account for about two-thirds of invasive meningococcal disease in the United States. Serogroups A and W-135 are rare in this country. Serogroup B, which accounts for about a third of invasive disease, is not included in the vaccine. Work is underway to develop a vaccine for serogroup B.

In Brief

Influenza Associated Pediatric Deaths (CDC Weekly Surveillance Report, June 7, 2010)

Since August 2009, CDC has received 277 reports of influenza associated pediatric deaths that occurred during the current influenza season. The 2009 influenza A (H1N1) virus was responsible for 226 (82%) of the 277 deaths. Fifty deaths were associated with influenza A virus for which the subtype was undetermined, and one was associated with influenza B virus infection.

A review of the 277 influenza pediatric deaths shows that the mean/median age was 8.8/9.3 respectively (range: 10 days to 17.9 years). Sixty-five percent of the children died in the ICU. Of the 153 children aged 6 months or older for whom 2009 influenza A (H1N1) vaccination status was known, 2 children were vaccinated according to the 2009 ACIP recommendations. Nineteen children were aged 6 months or less and were not eligible for vaccination.

FDA recommends resuming use of rotavirus vaccines

The FDA has recommended resuming use of rotavirus vaccines. Use of Rotarix was suspended in March when fragments of porcine circovirus were found in it; more recently, the virus had also been found in Rotateq. The FDA found no evidence that the viruses found in them pose a safety risk or cause infection or illness in humans, that both rotavirus vaccines have strong safety records, and that the benefits of the vaccines are substantial while the risks are purely theoretical.

Readers' Forum

We invite readers to share successful approaches and strategies in any area of the Immunization Program. To contribute, please write to us at ImmunizationProgram@ahs.state.vt.us. We welcome questions and comments.

108 Cherry Street • Box 70 • Burlington, VT 05402 • www.healthvermont.gov



Vermont Department of Health
Division of Health Surveillance
PO Box 70
Burlington, VT 05402

This newsletter is produced by the
Immunization Program Staff.