



# AAP IMMUNIZATION INITIATIVES NEWSLETTER

## Inside this issue:

Updates & Alerts	1
Events & Resources	2
Red Book Online	2
Featured Research Findings	3
CDC's Spotlight on Childhood Immunizations	4
Pediatrics In Practice: Avoiding Vaccine Administration Errors	6
Special Section National Infant Immunization Week	8

## Links to AAP Resources:

- [AAP Immunization Web site](#)
- [AAP Bookstore](#)
- [Red Book Online](#)

*The Childhood Immunization Support Program (CISP) is a cooperative agreement between the CDC and AAP. (Cooperative Agreement: 5U38OT000167)*



## Updates and Alerts



### ➤ **2017 Immunization Schedule & New AAP Adolescent Immunization Policies Released Recommended Immunization Schedules for Children and Adolescents Aged 18 Years or Younger, United States, 2017**

The new [schedule](#) is approved by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices, the American Academy of Pediatrics (AAP), The American Academy of Family Physicians, and the American College of Obstetrics and Gynecology. Major changes include:

- Recommendation for a 2-dose vaccination series for those receiving HPV vaccine before their 15<sup>th</sup> birthday, who do not have specific immunocompromising conditions.
- Elimination of reference to the live attenuated influenza vaccine (the nasal spray vaccine), which is no longer recommended due to poor effectiveness for the last 3 influenza seasons.
- A new column for 16-year-olds to emphasize the need for a meningococcal conjugate vaccine (MenACWY) booster dose at this age.
- A table that suggests which vaccines may be indicated for those who have a specific medical condition.
- A significant change to the timing of the first dose of hepatitis B vaccine (HepB birth dose) when administered to infants born to women who are not infected with the hepatitis B virus (HBV), i.e., women who are hepatitis B surface antigen (HBsAg)-negative:
  - The first footnote in the **2016** schedule read: "At birth: Administer monovalent HepB vaccine to all newborns before hospital discharge."
  - The footnote in the **2017** schedule, now reads: "At birth: Administer monovalent HepB vaccine to all newborns within 24 hours of birth."
  - This purpose of this change is to reemphasize the importance of the timeliness of this dose to protect newborns from becoming infected with hepatitis B at birth and developing chronic HBV disease later in life.

### **AAP Releases Two New Clinical Reports to Improve Adolescent Immunization Rates**

The AAP released two new policy statements on adolescent Immunization in conjunction with the 2017 immunization schedule; "[The Need to Optimize Adolescent Immunization](#)" and "[Practical Approaches to Optimize Adolescent Immunization](#)." Both endorse the 2-dose schedule for HPV vaccine in children initiating the series before age 15. They also focus on the need, and strategies, for increasing immunization rates among adolescents.

### ➤ **Mumps Outbreaks**

As of February 25, 2017, 1,077 [mumps infections were reported to the CDC](#) in 37 states and the District of Columbia. In 2016, there were the highest number of reported Mumps cases in a decade. Some state or local public health departments may call for a 3<sup>rd</sup> dose of the measles, mumps, and rubella (MMR) vaccine in times of outbreaks. Always check patients' vaccination records and keep their vaccinations up-to-date. View the CDC's

[Mumps: Outbreak-Related Questions and Answers for Patients](#) for more information.

## Upcoming Events

- **National Infant Immunization Week**  
April 22-29, 2017  
See more in the Special Section (page 8)
- **Advisory Committee on Immunization Practices (ACIP)**  
June 21-22, 2017  
Tom Harkin Global Communications Center (Building 19)  
Room 232, Kent "Oz" Nelson Auditorium  
Atlanta, GA  
The ACIP holds three meetings each year at the CDC to review scientific data and vote on vaccine recommendations. Meetings are open to the public and available online via live webcast. More information on ACIP meetings is available [here](#).
- **2017 Annual Conference on Vaccine Research (ACVR)**  
April 24-26, 2017  
Bethesda North Marriott Hotel and Conference Center  
Bethesda, MD  
The [ACVR](#) provides high-quality, current reports of scientific progress and best practices, bringing together diverse disciplines involved in research and development of vaccines and associated technologies for disease control through immunization. Attendees include healthcare professionals; public health officials; researchers; scientists; trainees; and vaccine, diagnostic and device manufacturers. Click [here](#) for more information and to register.

## Resources

- **AAP Community of Immunizers Listserv**  
The Community of Immunizers Listserv currently consists of >125 immunizers including physicians, physician assistants, nurse practitioners, nurses, medical assistants, and other office staff. It allows users to communicate with fellow immunizers, ask questions, and share ideas, resources, and successes! Email [immunize@aap.org](mailto:immunize@aap.org) to request to be added to the IZCommunity Listserv.
- **AAP 2017 HPV Vaccine Update Webinar Archive**  
View the [March 6 Webinar](#) discussing updates to the HPV dosing schedule and strategies to increase HPV vaccination rates in your practice. The Webinar featured a panel of experts in primary care, infectious diseases, obstetrics and gynecology, and otolaryngology.
- **Immunization Action Coalition (IAC) Laminated Child & Adolescent Immunization Schedule**  
The IAC offers durable copies of the [recommended child and adolescent immunization schedule](#) to put in patient exam rooms. The schedules are laminated for heavy use, include footnotes and are printed in color. Included is a list of contraindications and precautions, adapted from the General Recommendations on Immunizations: Recommendations of the Advisory Committee on Immunization Practices.
- **The Vaccine Handbook: A Practical Guide for Clinicians ("The Purple Book") – Gary Marshall, MD**  
The [6<sup>th</sup> edition of the Purple Book is now available](#), and updated with the latest vaccine information through early 2017. It is considered a vital source of practical, up-to-date information for vaccine providers and educators. The Purple Book draws together the latest vaccine science and guidance into a concise, user-friendly, practical resource for the private office, public health clinic, academic medical center, and hospital use. A free app is also available! (No purchase necessary, registration required).



### Red Book Online

The Red Book Represents Official AAP Policy

### New—Red Book Online Tutorial

Are you familiar with *Red Book Online* (RBO)? Would you like to learn how to better navigate the site? View the new tutorial “Red Book Online Tour” at [https://redbook.solutions.aap.org/ss/rbo\\_video\\_tutorial\\_player\\_tour.aspx](https://redbook.solutions.aap.org/ss/rbo_video_tutorial_player_tour.aspx) and watch a guided tour of the following RBO features:

- Homepage
- *Red Book* table of contents
- Components of a *Red Book* chapter
- Visual Library
- Updates
- Immunization Schedules
- Vaccine Status Table
- Influenza Resource Page

Refer back to the tutorial at any time by going to the home RBO home page at <https://redbook.solutions.aap.org/> and clicking “Resources Tour” toward the upper right.

## Featured Research Findings

### Safety of Second-Dose Single-Antigen Varicella Vaccine

JR Su, MD, PhD, MPH; Z Leroy, MD, MPH; PW Lewis, MSPH; P Haber, MPH; M Marin, MD; J Leung, MPH; EJ Woo, MD, MPH; TT Shimabukuro, MD, MPH, MBA

The Food and Drug Administration first licensed a varicella vaccine for use in children 12 months and older in 1995. For a little over a decade, only one dose was recommended and disease outbreaks continued despite the routine recommendation. In 2006, a second dose was routinely recommended at ages 4-6 years, to improve protection. While safety data had been documented and studied for the first dose of varicella, such information was lacking for the second dose.

This study investigated the incidence of adverse events (AEs) of a single-antigen varicella vaccine booster. To do this, authors identified 14,641 second-dose single-antigen varicella vaccine reports in the Vaccine Adverse Event Reporting System (VAERS), from 2006, when the second-dose recommendation was issued, to 2014 in children aged 4 to 18 years. From those reports, authors excluded those, who had received vaccines outside of the United States, that involved measles-mumps-rubella vaccine, that were explicitly a first dose of varicella, or for which the age of the patient was not available.

Results		Ages 4-6		Ages 7-18		
		Varicella Vaccine only (%)*	Varicella + other vaccines (%)*	Varicella Vaccine only (%)*	Varicella + other vaccines (%)*	
<b>Nonserious reactions</b>	Injection site reaction	26	51	Injection site reaction	44	35
	Erythema	15	15	Erythema	25	19
<b>Serious Reaction</b>	Pyrexia	15	33	Headache	18	31
	Injection site reactions	15	26	Vomiting	21	28
<b>Prespecified conditions**</b>	Anaphylaxis	1	1	Anaphylaxis	1	<1
	Meningitis	0	<1	Meningitis	0	<1
	Encephalitis	0	<1	Encephalitis	<1	<1
	Cellulitis	3	6	Cellulitis	7	4
	Varicella	15	1	Varicella	4	1
	Herpes-zoster	2	<1	HZ	1	1
	Death	0	<1	Death	<1	<1

\*Percent of reports that included this AE. Some reports contained more than 1 AE

\*\*Authors reviewed available medical records for reported events that they classified as “prespecified conditions,” based on clinical significance. These conditions include, anaphylaxis, meningitis, encephalitis, cellulitis, varicella, herpes-zoster and death. Upon review, the reported conditions were categorized using Brighton Collaboration Case definitions.

#### Conclusions

Authors reviewed the reported deaths and determined that there was not a causal relationship between receipt of second-dose single-antigen varicella vaccine and death. They concluded that second-dose single-antigen varicella vaccination is safe, that AEs following its administration were generally mild and self-limiting, and that its routine recommendation further reduces morbidity from varicella.

*Pediatrics*, 139, 3. 2017.

<http://pediatrics.aappublications.org/content/early/2017/02/05/peds.2016-2536>

(Login may be required)

## CDC Spotlight on Childhood Immunizations

### Developing Immunization Champions within Your Practice

As a pediatrician, you likely talk with parents about vaccines. After all, CDC research shows that their child's doctor is a parent's most trusted source of vaccine information. Some parents may have questions or concerns about their children's vaccines, and they turn to you for answers. One way to support these parents is by developing immunization champions within your practice.

Champions are staff who make an extra effort to promote immunization and improve coverage rates. [National Infant Immunization Week \(NIIW\)](#), which takes place from April 22-29, 2017, is the perfect time to think about how your practice can develop these champions. During this week, CDC recognizes [Childhood Immunization Champions](#) around the country.

Champions can play a significant role in practices of any size, whether your practice is just a few doctors or a large, multi-office group. You may already spend a lot of time discussing immunization with parents, but champions can reinforce these messages. This can help parents feel further supported and empowered to vaccinate according to the CDC's recommended immunization schedule. Champions can also play a critical role in helping parents access the accurate, balanced information they are seeking about their child's vaccines.

Who could potentially be an immunization champion in your practice? It can really be anyone who is passionate about immunizations and enjoys speaking with parents. Other pediatricians and nurses may be the most obvious candidates, but medical assistants and receptionists can also be powerful champions, since they interact with parents before and after the medical exam. Not every champion needs to have clinical expertise. Non-medical staff can encourage parents to read any flyers or brochures available in your office or refer them to credible sources of online vaccine information, like the Centers for Disease Control and Prevention (CDC)'s [vaccine website for parents](#).

Here are some ideas for how to cultivate immunization champions in your practice:

- Identify your champions. Approach staff who have shown an interest in immunization or are particularly good at communicating with parents. Review [profiles of CDC Childhood Immunization Champions](#) for ideas about who could potentially be a champion.
- Give your champions guidance about specific actions they can take. For example, depending on their role in the practice, they could do the following:
  - Ask parents if they have any vaccine questions or concerns before the physician enters the exam room;
  - Wear buttons or stickers that say "Ask me about the importance of vaccines," or something similar;
  - Ensure that parents receive and have a chance to read [Vaccine Information Statements](#);
  - Create educational displays in waiting rooms; or
  - Simply remind parents that shots are important whenever they get a chance.

## CDC Spotlight on Childhood Immunizations

### Developing Immunization Champions within Your Practice (Cont'd)

- If your champions are tech savvy, they could launch a practice blog with posts about vaccines (and other child health topics), or they could post vaccine messages on your practice's website or social media platforms.
- Provide opportunities for champions to learn more about immunization, including how to improve their communication skills. For example:
  - Encourage champions to complete CDC's You Call the Shots online training. Continuing Education credits are available.
  - Devote a staff meeting to reviewing CDC's Provider Resources for Vaccine Conversations with Parents, which contains fact sheets about vaccine safety, vaccine preventable diseases, and how to talk with parents.
  - Invite your local health department or immunization coalition to come in and train your staff on current immunization issues, or send staff to trainings provided by these organizations.
  - Send one or two champions to your state immunization conference.
- Give your champions opportunities to meet with each other, ask questions, and share challenges and lessons learned. A monthly breakfast or lunch meeting might be a good opportunity to meet.
- Recognize the efforts of your champions, both within and outside of your practice. For example:
  - Present your champions with certificates or other types of awards
  - Write a profile of your champion and post it on your website
  - Nominate one of your champions for CDC's Childhood Immunization Champion Award. Each April, CDC recognizes up to one Champion from each state, the District of Columbia, U.S. territories and Freely Associated States.

It takes a village to raise a child. You could also say that it takes an entire pediatric practice to ensure on-time vaccination of infants and young children. By developing immunization champions within your practice, you can help ensure parents receive credible immunization information and feel supported in their decisions to vaccinate their child according to the CDC's recommended immunization schedule.

### Additional Resources for Vaccine Champions

- [Medical Assistants Resources and Training on Immunization \(MARTi\) Web site](#) (this site has resources tailored for Medical Assistants)
- [HPV Champion Toolkit](#) (this toolkit has resource for providers, including nurses).

### Featured Provider Resources for Vaccine Conversations with Parents

#### Talking with Parents about Vaccines for Infants: Strategies for Health Care Professionals

The CDC Provider Resources for Vaccine Conversations with Parents includes a handout, [Talking with Parents about Vaccine for Infants: Strategies for Health Care Professionals](#).

# Pediatrics In Practice

## Avoid Vaccine Administration Errors

Vaccine Administration Errors are significant, making up about 7% of all events reported to Vaccine Adverse Events Reporting System (VAERS) from 2000-2013, according to the CDC Presentation, [Vaccination Errors Reported to the Vaccine Adverse Event Reporting System \(VAERS\), 2000-2013](#), by Beth Hibbs, RN, MPH. The following tips and tools can help reduce vaccine administration errors in your practice!

### The 7 Rights

Vaccinate patients according to these 7 Rights as outlined in the [CDC Pink Book](#).

#### The right patient

All patients should be screened for contraindications and precautions every time a vaccine is administered, even if the patient has previously received a dose of that vaccine. The patient's status can change from one visit to the next or a new contraindication or precaution may have been added. Screening questions are available [here](#).

#### The right vaccine or diluent

Some vaccines need to be reconstituted; a specific diluent will be provided by the manufacturer. It is important to follow manufacturer guidelines in reconstituting the vaccine. See [Vaccines with Diluents: How to Use Them](#). Measles, mumps, rubella (MMR); varicella; zoster; meningococcal polysaccharide (MPSV); and rotavirus vaccines all require reconstitution. Diluents are not interchangeable; only use the diluent that comes with the vaccine.

#### The right time

This includes administering at the correct age, the appropriate interval, and before vaccine or diluent expires.

Check the [schedule](#) to ensure the patient is getting the vaccine at the right time, and the [appropriate interval](#) (Log-in required). Each vaccine vial should be checked for the expiration date. A vaccine should never be used if it is expired. Once reconstituted, the vaccine must be administered according to the guidelines or discarded. In most cases, if not used within 30 minutes, the vaccine will lose its potency and the patient will not be properly immunized.

#### The right dosage

Vaccine administrators need to make sure they draw the correct amount of immunization when drawing from multi-dose vials. See [Administering Vaccines: Dose, Route, Site, and Needle Size](#).

#### The right route, needle length, and technique

Recommended childhood immunizations are administered through the following routes: intramuscular (IM), subcutaneous (SQ), and oral. The majority of immunizations are administered IM, but MMR, varicella, zoster, and MPSV are administered SQ. In administering IM injections, it is important to use a needle with the correct length to reach the muscle mass and not seep into SQ tissue. ([See Table 1 online](#))

When administering IM injections, the needle should be inserted at a 90° angle—and quickly. It is not necessary to aspirate after needle insertion. SQ injections are administered at a 45° angle, and the SQ tissue is pinched up to prevent injection into the muscle. It is not necessary to aspirate after needle insertion. Multiple immunizations should be a minimum of 1 inch apart. Oral polio vaccine has not been used in the United States since 2000 but is still used in other countries. In the United States, inactivated polio vaccine is given and can be administered SQ or IM.

# Pediatrics In Practice

## Avoid Vaccine Administration Errors

### The 7 Rights (continued)

#### The right site

Children of different sizes and ages will need vaccines administered in different locations on the body. (see [Table 2 online](#)).

#### The right documentation

Document the following:

- Vaccine manufacturer,
  - Required under the National Childhood Vaccine Injury Act
- Lot number,
  - Required under the National Childhood Vaccine Injury Act
- Date of administration,
  - Required under the National Childhood Vaccine Injury Act
- Name and business address of the health care professional administering the vaccine,
  - Required under the National Childhood Vaccine Injury Act
- Date that VIS is provided (and VIS publication date),
  - Required by Centers for Disease Control and Prevention (CDC) regulations for vaccines purchased through CDC contract. See the VIS Web site for current versions.
- Site (eg, deltoid area),
  - Recommended by the American Academy of Pediatrics
- Route (eg, intramuscular) of administration, and
  - Recommended by the American Academy of Pediatrics
- Expiration date of the vaccine.
  - Recommended by the American Academy of Pediatrics

## Vaccine Administration Resources

### Education/Training

- AAP: [Immunization Training Guide](#)
- AAP Red Book: [General Instructions for Vaccine Administration](#) (Login required)
- CDC: [Epidemiology and Prevention of Vaccine-Preventable Diseases \(The Pink Book\), Vaccine Administration](#)
- CDC: [One and Only Campaign Vaccine Administration Videos](#)

### Office Tools

- IAC: [Administering Vaccines: Dose, Route, Site, and Needle Size](#)
- IAC: [How to Administer Intramuscular \(IM\) Vaccine Injections and How to Administer Subcutaneous \(SC\) Injections](#)
- IAC: [Vaccines With Diluents: How to Use Them](#)

# Special Section

## National Infant Immunization Week April 22-29, 2017

### What is NIIW?

[National Infant Immunization Week](#) (NIIW) is April 22 - April 29, 2017. NIIW celebrates the successes of immunization programs around the country and highlights the importance of immunizing. Since 1994, NIIW has served as a call to action for parents, caregivers, and healthcare providers to ensure infants are fully immunized against 14 vaccine-preventable diseases, including influenza.

The AAP will have an active campaign for [NIIW](#). The AAP is partnering with the Centers for Disease Control and Prevention (CDC) in inviting AAP members to promote this campaign and participate in the [CDC Blog-A-Thon](#).

### Social Media

The AAP will also have an active social media campaign, with the hashtags #WhyIVax and #Ivax2Protect, promoting its interactive immunization map, and [healthychildren.org](#) will be promoting stories from parents about the power of immunization. For a complete list of activities and resources for NIIW 2017, please visit the campaign webpage at [www.aap.org/whyivax](#). View the AAP [Immunization Social Media Toolkit](#) for access to guidance and sample posts, tweets, memes, and videos. Use #WhyIVax, #Ivax2protect and #NIIW when you post!

### Blogs

If you write and publish a blog on the power of vaccines during this week, you can include the campaign web badge on your blog to make others aware of your participation. Also, send your blog's title and Web address to CDC at [childhoodvaccines@cdc.gov](mailto:childhoodvaccines@cdc.gov) and AAP at [twitter@aap.org](mailto:twitter@aap.org) with "NIIW Blog-A-Thon" in the subject line. Promote your blog on social media using the hashtags #WhyIVax and #Ivax2Protect.

### Parents Stories

To facilitate a conversation about the importance of immunization, the AAP asked parents, through [healthychildren.org](#), to share a story about why they vaccinate. These [stories](#) can be shared with parents by providing a link or through social media. Use the AAP [Immunization Social Media Toolkit](#) to easily share these stories.

### Share with CISP!

**Success Stories:** Have you implemented a system in your practice to improve efficiency or increase immunization rates? The Childhood Immunization Support Program would love to hear and share your success story!

OR

**Topics:** Got an idea about a topic you would like to see covered in the AAP Immunization Initiatives Newsletter?

Contact us at [immunize@aap.org](mailto:immunize@aap.org)



# Special Section

## National Infant Immunization Week April 22-29, 2017

### Resources for Communicating with Parents

- [AAP Communicating with Parents Web pages](#)
  - [Vaccine-Hesitant Parents](#)
  - [Common Parental Concerns](#)
  - [Risk Communication Videos](#)
- Interactive Education
  - [AAP Community of Immunizer's \(includes a vaccine hesitancy educational module\)](#)
  - [Case Studies on Vaccine Hesitancy](#)
  - [Risk Communication Videos](#)
- Resources to Share with Parents
  - [HealthyChildren.org Immunization Information](#)
  - [Children's Hospital of Philadelphia Vaccine and Vaccine-Safety Related Q & A Sheets](#)

### Posters

These posters can be displayed in waiting rooms or exam rooms. They encourage parents to get their children immunized.

### AAP Posters

- [My kids are vaccinated!](#) (DOC 3,108KB)
- [Breastfeeding: Baby's First Immunization](#) (PDF 62KB)

### CDC Posters

- [Help him fight measles with the most powerful defense](#) (PDF 615KB)
- [In the battle against whooping cough, she needs more than cute](#) (PDF 483KB)
- [Mi vida... hoy celebramos tu segundo cumpleaños - Spanish](#) (PDF 1.72MB)
- [Mi Tesoro...prometo protegerte contra 14 enfermedades graves- Spanish](#) (PDF 1.63MB)

### AAP Interactive Immunization Map

The AAP offers an [interactive map](#) that highlights vaccination rates in each state for recommended childhood vaccines, including vaccines that protect against measles, mumps, pertussis, polio, and influenza.