

# VACCINATE ADULTS!

A bulletin for adult medicine specialists from the Immunization Action Coalition

Highlighting the latest developments in routine adult immunization and chronic hepatitis B virus infection.

## Ask the Experts

*Editor's note: The Immunization Action Coalition thanks William L. Atkinson, MD, MPH; Harold S. Margolis, MD; and Linda A. Moyer, RN, of the Centers for Disease Control and Prevention for answering the following questions for our readers. Dr. Atkinson, medical epidemiologist at the National Immunization Program, and Dr. Margolis, Director, Division of Viral Hepatitis, serve as CDC liaisons to the Coalition. Ms. Moyer is an epidemiologist at the Division of Viral Hepatitis.*

### Immunization questions

by William L. Atkinson, MD, MPH

#### Is it required to use a VIS in an emergency room when we give Td to a patient?

Yes. The National Childhood Vaccine Injury Act requires that a Vaccine Information Statement be given to persons of any age before they receive a dose of any vaccine included in the Act. Tetanus and diphtheria toxoids are included in the Act. If the patient is unaccompanied and unable to clearly read and understand the information in the VIS (e.g., unconscious), this should be noted in the patient's chart.

#### What should we do if a dose of expired vaccine is given to a patient?

The dose should be repeated. If the expired dose is a live virus vaccine, you must wait at least 4 weeks after the previous (expired) dose was given before repeating it. If you prefer, you can perform serologic testing to check for immunity.

#### What is the appropriate lab test to use to determine whether there has been previous chickenpox disease?

Commercially available laboratory tests for varicella antibody are usually based on a technique called EIA (enzyme immunoassay). Though these tests are sufficiently sensitive to detect antibody resulting from varicella zoster virus infection, they are generally not sensitive enough to detect vaccine-induced antibody. The more sensitive assays needed to detect vaccine-induced antibody are not widely available. This is why CDC does not recommend antibody testing after varicella vaccination.

### Smallpox

The following Q&As were excerpted from CDC's website. To access all the Q&As and additional CDC information, go to [www.cdc.gov/smallpox](http://www.cdc.gov/smallpox)

#### What are the symptoms of smallpox?

The symptoms of smallpox begin with high fever, head and body aches, and sometimes vomiting. A rash follows that spreads and progresses to raised bumps and pus-filled blisters that crust, scab, and

fall off after about three weeks, leaving pitted scars.

#### If someone comes in contact with smallpox, how long does it take to show symptoms?

After exposure, it takes between 7 and 17 days for symptoms of smallpox to appear (average incubation time is 12 to 14 days). During this time, the infected person feels fine and is not contagious.

### Immunization questions?

- E-mail [nipinfo@cdc.gov](mailto:nipinfo@cdc.gov)
- Call CDC's Immunization Information Hotline at (800) 232-2522

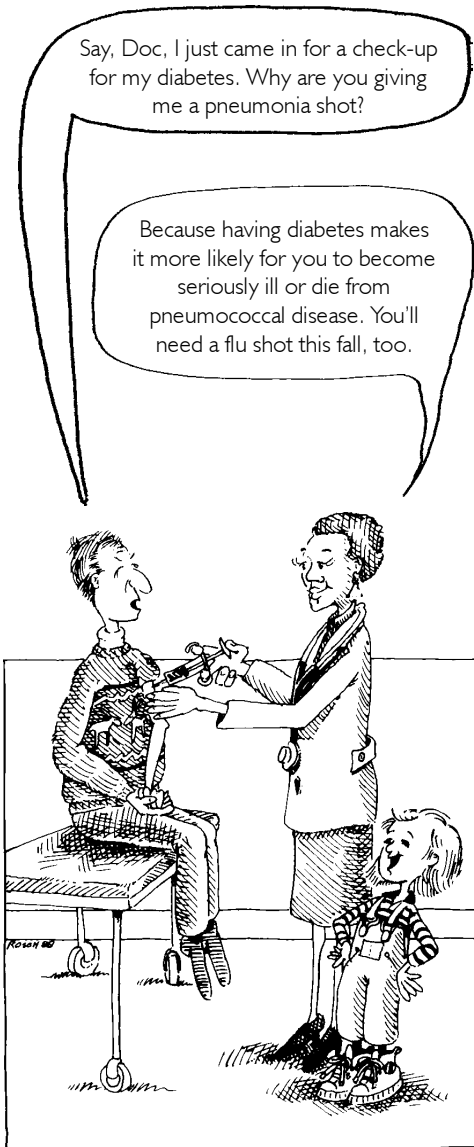
#### How is smallpox spread?

Smallpox normally spreads from contact with infected persons. Generally, direct and fairly prolonged face-to-face contact is required to spread smallpox from one person to another. Smallpox also can be spread through direct contact with infected bodily fluids or contaminated objects such as bedding or clothing. Indirect spread is less common. Rarely, smallpox has been spread by virus carried in the air in enclosed settings such as buildings, buses, and trains. Smallpox is not known to be transmitted by insects or animals.

#### Is smallpox contagious before the smallpox symptoms show?

A person with smallpox is sometimes contagious with onset of fever (prodrome phase), but the person becomes most contagious with the onset of

(continued on page 9)



Artwork courtesy of NY State Health Dept.

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## VACCINATE ADULTS!

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The Immunization Action Coalition (IAC), a 501(c)3 nonprofit organization, publishes practical immunization information for health professionals to help increase immunization rates and prevent disease.

The Hepatitis B Coalition, a program of IAC, promotes hepatitis B vaccination for all children 0–18 years; HBsAg screening for all pregnant women; testing and vaccination for high-risk groups; and education and treatment for people chronically infected with hepatitis B.

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# Vaccine highlights

## Recommendations, schedules, and more

*Editor's note: The information on these pages is current as of April 25, 2003.*

### The next ACIP meetings

The Advisory Committee on Immunization Practices (ACIP) is a committee of 15 national experts that provides advice and guidance to the Centers for Disease Control and Prevention (CDC) regarding the most appropriate use of vaccines. ACIP meetings are held three times a year in Atlanta, Ga., and are open to the public. The next meetings will be held on June 18–19 and Oct. 15–16.

### ACIP statements

All clinicians should have a set of ACIP statements, public health recommendations on vaccines, published in the *Morbidity and Mortality Weekly Report (MMWR)*. Free continuing education credits are available for reading the statement and completing the brief test at the end of the statement.

#### To obtain ACIP statements:

- Download individual statements from CDC's website: [www.cdc.gov/mmwr](http://www.cdc.gov/mmwr) You can also request a free electronic subscription to the *MMWR* at this site.
- Download individual statements from links on IAC's website: [www.immunize.org/acip](http://www.immunize.org/acip)
- Call CDC's National Immunization Information Hotline: (800) 232-2522.
- Order the "Immunization Works" CD (CDC, 2003). It contains all ACIP statements, VISs, and the *Pink Book*. To obtain a copy, use CDC's free online ordering system: [https://www2.cdc.gov/nchstp\\_od/PIWeb/NIPorderform.asp](https://www2.cdc.gov/nchstp_od/PIWeb/NIPorderform.asp)

### Smallpox vaccine news

On April 4, CDC published a Notice to Readers in *MMWR* titled "Supplemental Recommendations on Adverse Events Following Smallpox Vaccine in the Pre-Event Vaccination Program." In this notice ACIP recommends that persons be excluded from the prevent smallpox vaccination program who have known underlying heart disease, with or without symptoms, or who have three or more known major cardiac risk factors (i.e., hypertension, diabetes, high cholesterol, heart disease at age 50 years in a first-degree relative, and smoking).

Due to the constantly evolving information on small-

pox vaccine and U.S. preparedness activities, readers are encouraged to visit CDC's smallpox website found at [www.cdc.gov/smallpox](http://www.cdc.gov/smallpox).

### Vaccine supply news

On November 19, 2002, Wyeth Vaccines announced that it is ceasing production of two of its vaccine products—FluShield (influenza vaccine) and Pnu-Immune (polysaccharide pneumococcal vaccine).

On October 18, 2002, Aventis Pasteur voluntarily recalled multiple lots of Menomune (quadravalent meningococcal vaccine) due to potency issues against disease caused by serogroup A. This recall has resulted in a shortage of single-dose vials; 10-dose vials have not been affected.

### Immunization schedule news

On October 11, 2002, CDC published "Recommended Adult Immunization Schedule, U.S., 2002–03" and "Recommended Immunizations for Adults with Medical Conditions." Black-and-white copies of these schedules are found in this issue of **VACCINATE ADULTS!** (pages 4–6). To access a copy in color, visit [www.cdc.gov/nip/recs/adult-schedule.pdf](http://www.cdc.gov/nip/recs/adult-schedule.pdf)

### Viral hepatitis news

On Sept. 20, 2002, the FDA approved the use of Hepsera (adefovir dipivoxil) tablets, manufactured by Gilead Sciences Inc., for the treatment of chronic hepatitis B in adults with evidence of active viral replication.

### Flu & PPV news from CMS

On March 1, a revised Centers for Medicare and Medicaid Services (CMS) physician's fee schedule became effective that nearly doubles Medicare reimbursement for the administration fee for some adult vaccines, including influenza, from \$3.98 to approximately \$7.26.

Visit IAC online:  
[www.immunize.org](http://www.immunize.org)  
[www.vaccineinformation.org](http://www.vaccineinformation.org)

DISCLAIMER: **VACCINATE ADULTS!** is available to all readers free of charge. Some of the information in this issue is supplied to us by the Centers for Disease Control and Prevention in Atlanta, Georgia, and some information is supplied by third party sources. The Immunization Action Coalition (IAC) has used its best efforts to accurately publish all of this information, but IAC cannot guarantee that the original information as supplied by others is correct or complete, or that it has been accurately published. Some of the information in this issue is created or compiled by IAC. All of the information in this issue is of a time-critical nature, and we cannot guarantee that some of the information is not now outdated, inaccurate, or incomplete. IAC cannot guarantee that reliance on the information in this issue will cause no injury. Before you rely on the information in this issue, you should first independently verify its current accuracy and completeness. IAC is not licensed to practice medicine or pharmacology, and the providing of the information in this issue does not constitute such practice. Any claim against IAC must be submitted to binding arbitration under the auspices of the American Arbitration Association in St. Paul, Minnesota.

# IAC welcomes Advisory Board Liaisons

The Immunization Action Coalition has restructured its Advisory Board to include both liaisons from organizations as well as individuals. It is inspiring to have such a strong group of committed experts from throughout the immunization community help us carry out our mission to increase immunization rates and prevent disease.

We are delighted to have the following organizations as partners in the Coalition's work:

- ◆ American Academy of Pediatrics
- ◆ American College of Obstetricians and Gynecologists
- ◆ American College of Physicians
- ◆ American Medical Association
- ◆ American Nurses Association
- ◆ American Pharmacists Association
- ◆ Children's Vaccine Program at PATH
- ◆ Division of Viral Hepatitis, National Center for Infectious Diseases, Centers for Disease Control and Prevention (CDC)
- ◆ Infectious Diseases Society of America
- ◆ Institute for Vaccine Safety, Johns Hopkins University
- ◆ National Association of Pediatric Nurse Associates and Practitioners
- ◆ National Immunization Program, CDC
- ◆ National Medical Association
- ◆ National Network for Immunization Information
- ◆ National Vaccine Program Office
- ◆ Office of the Associate Director for Minority Health, CDC
- ◆ Pediatric Infectious Diseases Society
- ◆ Vaccine Education Center, Children's Hospital of Philadelphia

We warmly welcome the following seven new liaison members to IAC's Advisory Board:

## **Dennis A. Brooks, MD, MPH, MBA**

National Medical Association (NMA)

Dr. Brooks is Assistant Professor of Pediatrics at Johns Hopkins School of Medicine. He has done research on the use of immunization registries working with both CDC and the National Vaccine Advisory Committee. At NMA, he is Director of Research for the Pediatric Section. Dr. Brooks also serves on CDC's Advisory Committee on Immunization Practices (ACIP).

## **Louis Z. Cooper, MD, FAAP**

National Network for Immunization Information (NNii)

Dr. Cooper is Professor of Pediatrics, Columbia University, and emeritus Chair of Pediatrics at St. Luke's-Roosevelt Hospital Center in New York City. He served as President of the American Academy of Pediatrics (AAP) during 2001–2002 and is currently the Interim Executive Director of NNii.

## **Mark A. Kane, MD, MPH**

Children's Vaccine Program at PATH (Program for Appropriate Technology in Health)

Dr. Kane, pediatrician, is Director of the Children's Vaccine Program (CVP) at PATH, whose mission is to improve immunization rates of children in the developing world. Dr. Kane completed a three-year term as a Global Alliance for Vaccines and Immunization (GAVI) Board member and continues to serve as a member of the GAVI Working Group.

## **Kathleen M. Neuzil, MD, MPH**

American College of Physicians (ACP)

Dr. Neuzil is Assistant Professor of Medicine, Division of Infectious Diseases, University of Washington School of Medicine, and Staff Physician and Hospital Epidemiologist, Veterans Affairs Puget Sound Health Care System, Seattle. She is a member of ACP's Adult Immunization Initiative Physician Advisory Board and is ACP's liaison representative to ACIP.

## **Walter A. Orenstein, MD**

National Immunization Program (NIP), CDC

Dr. Orenstein, pediatric infectious disease specialist, has been Director of CDC's National Immunization Program since 1993, and for five years prior, was Director of CDC's Division of Immunization. He serves on the National Vaccine Advisory Committee and the AAP's Committee on Infectious Diseases. He is Chairman of the Technical Consultative Group on the Global Eradication of Poliomyelitis of WHO's Expanded Program on Immunization and is the co-editor of the third edition of the textbook *Vaccines*.

## **Mitchel C. Rothholz, RPh**

American Pharmacists Association (APhA)

Mr. Rothholz, pharmacist, is Vice President for Professional Practice of APhA. He is responsible for APhA's academies, practice and career development activities, immunization and other public health initiatives, and awards and election processes. He is an active member of numerous state and national pharmacy organizations.

## **Litjen Tan, PhD**

American Medical Association (AMA)

Dr. Tan is Director, Infectious Disease, Immunology, and Molecular Medicine at AMA. He is responsible for all scientific and policy issues that pertain to infectious diseases and ensures that AMA remains abreast of critical happenings in infectious diseases. He has been active in issues pertaining to vaccine safety, vaccine accessibility for children and adults, increasing vaccination coverage, and reaching out to high-risk groups. Dr. Tan is AMA's liaison representative to ACIP.

Brief biosketches of all Advisory Board members are found on the Web at [www.immunize.org/genr.d/advbd.htm](http://www.immunize.org/genr.d/advbd.htm)

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Executive Director

# Recommended Adult Immunization Schedule, United States, 2002-2003

 For all persons in this group

 Catch-up on childhood vaccinations

 For persons with medical/exposure indications

Age Group ► Vaccine ▼	19–49 Years	50–64 Years	65 Years and Older
<b>Tetanus, Diphtheria (Td)*</b>	1 dose booster every 10 years <sup>1</sup>		
<b>Influenza</b>	1 dose annually for persons with medical or occupational indications, or household contacts of persons with indications <sup>2</sup>	1 annual dose	
<b>Pneumococcal (polysaccharide)</b>	1 dose for persons with medical or other indications (1 dose revaccination for immunosuppressive conditions) <sup>3,4</sup>		1 dose for unvaccinated persons <sup>3</sup> 1 dose for revaccination <sup>4</sup>
<b>Hepatitis B*</b>	3 doses (0, 1–2, 4–6 months) for persons with medical, behavioral, occupational, or other indications <sup>5</sup>		
<b>Hepatitis A</b>	2 doses (0, 6–12 months) for persons with medical, behavioral, occupational, or other indications <sup>6</sup>		
<b>Measles, Mumps, Rubella (MMR)*</b>	1 dose if measles, mumps, or rubella vaccination history is unreliable; 2 doses for persons with occupational or other indications <sup>7</sup>		
<b>Varicella*</b>	2 doses (0, 4–8 weeks) for persons who are susceptible <sup>8</sup>		
<b>Meningococcal (polysaccharide)</b>	1 dose for persons with medical or other indications <sup>9</sup>		

See "Footnotes for Recommended Adult Immunization Schedule, United States, 2002-2003" on next page.

\*Covered by the Vaccine Injury Compensation Program. For information on how to file a claim, call 800-338-2382. Please also visit [www.hrsa.gov/osp/vicp](http://www.hrsa.gov/osp/vicp) To file a claim for vaccine injury write: U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington D.C. 20005. (202) 219-9657.

This schedule indicates the recommended age groups for routine administration of currently licensed vaccines for persons 19 years of age and older. Licensed combination vaccines may be used whenever any components of the combination are indicated and the vaccine's other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations.

Report all clinically significant post-vaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available by calling (800) 822-7967 or from the VAERS website at [www.vaers.org](http://www.vaers.org)

For additional information about the vaccines listed above and contraindications for immunization, visit the National Immunization Program Website at [www.cdc.gov/nip/](http://www.cdc.gov/nip/) or call the National Immunization Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).

**Approved by the Advisory Committee on Immunization Practices (ACIP), and accepted by the American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Family Physicians (AAFP)**

# Footnotes for Recommended Adult Immunization Schedule, United States, 2002-2003

- 1. Tetanus and diphtheria (Td)**—A primary series for adults is 3 doses: the first 2 doses given at least 4 weeks apart and the 3<sup>rd</sup> dose, 6-12 months after the second. Administer 1 dose if the person had received the primary series and the last vaccination was 10 years ago or longer. *MMWR* 1991;40(RR-10):1-21. The ACP Task Force on Adult Immunization supports a second option: a single Td booster at age 50 years for persons who have completed the full pediatric series, including the teenage/young adult booster. *Guide for Adult Immunization*. 3<sup>rd</sup> ed. ACP 1994:20.
- 2. Influenza vaccination**—Medical indications: chronic disorders of the cardiovascular or pulmonary systems including asthma; chronic metabolic diseases including diabetes mellitus, renal dysfunction, hemoglobinopathies, immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus [HIV]), requiring regular medical follow-up or hospitalization during the preceding year; women who will be in the second or third trimester of pregnancy during the influenza season. Occupational indications: health-care workers. Other indications: residents of nursing homes and other long-term care facilities; persons likely to transmit influenza to persons at high-risk (in-home care givers to persons with medical indications, household contacts and out-of-home caregivers of children birth to 23 months of age, or children with asthma or other indicator conditions for influenza vaccination, household members, and care givers of elderly and adults with high-risk conditions); and anyone who wishes to be vaccinated. *MMWR* 2002; 51(RR-3):1-31.
- 3. Pneumococcal polysaccharide vaccination**—Medical indications: chronic disorders of the pulmonary system (excluding asthma), cardiovascular diseases, diabetes mellitus, chronic liver diseases including liver disease as a result of alcohol abuse (e.g., cirrhosis), chronic renal failure or nephrotic syndrome, functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkins disease, generalized malignancy, organ or bone marrow transplantation), chemotherapy with alkylating agents, anti-metabolites, or long-term systemic corticosteroids. Geographic/other indications: Alaskan Natives and certain American Indian populations. Other indications: residents of nursing homes and other long-term care facilities. *MMWR* 1997; 47(RR-8):1-24.
- 4. Revaccination with pneumococcal polysaccharide vaccine**—One-time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome, functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkins disease, generalized malignancy, organ or bone marrow transplantation), chemotherapy with alkylating agents, anti-metabolites, or long-term systemic corticosteroids. For persons 65 or older, one-time revaccination if they were vaccinated 5 or more years previously and were aged less than 65 years at the time of primary vaccination. *MMWR* 1997; 47(RR-8):1-24.
- 5. Hepatitis B vaccination**—Medical indications: hemodialysis patients, patients who receive clotting-factor concentrates. Occupational indications: health-care workers and public-safety workers who have exposure to blood in the workplace, persons in training in schools of medicine, dentistry, nursing, laboratory technology, and other allied health professions. Behavioral indications: injecting drug users, persons with more than one sex partner in the previous 6 months, persons with a recently acquired sexually transmitted disease (STD), all clients in STD clinics, men who have sex with men. Other indications: household contacts and sex partners of persons with chronic HBV infection, clients and staff of institutions for the developmentally disabled, international travelers who will be in countries with high or intermediate prevalence of chronic HBV infection for more than 6 months, inmates of correctional facilities. *MMWR* 1991;40(RR-13):1-25. ([www.cdc.gov/travel/diseases/hbv.htm](http://www.cdc.gov/travel/diseases/hbv.htm))
- 6. Hepatitis A vaccination**—(For the combined HepA-HepB vaccine, use 3 doses at 0, 1, 6 months). Medical indications: persons with clotting-factor disorders or chronic liver disease. Behavioral indications: men who have sex with men, users of injecting and noninjecting illegal drugs. Occupational indications: persons working with HAV-infected primates or with HAV in a research laboratory setting. Other indications: persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A. *MMWR* 1999; 48(RR-12):1-37. ([www.cdc.gov/travel/diseases/hav.htm](http://www.cdc.gov/travel/diseases/hav.htm))
- 7. Measles, Mumps, Rubella vaccination (MMR)**—Measles component: Adults born before 1957 may be considered immune to measles. Adults born in or after 1957 should receive at least one dose of MMR unless they have a medical contraindication, documentation of at least one dose or other acceptable evidence of immunity. A second dose of MMR is recommended for adults who:
  - are recently exposed to measles or in an outbreak setting
  - were previously vaccinated with killed measles vaccine
  - were vaccinated with an unknown vaccine between 1963 and 1967
  - are students in post-secondary educational institutions
  - work in health care facilities
  - plan to travel internationallyMumps component: 1 dose of MMR should be adequate for protection. Rubella component: Give 1 dose of MMR to women whose rubella vaccination history is unreliable and counsel women to avoid becoming pregnant for 4 weeks after vaccination. For women of child-bearing age, regardless of birth year, routinely determine rubella immunity and counsel women regarding congenital rubella syndrome. Do not vaccinate pregnant women or those planning to become pregnant in the next 4 weeks. If pregnant and susceptible, vaccinate as early in postpartum period as possible. *MMWR* 1998; 47(RR-8):1-57.
- 8. Varicella vaccination**—Recommended for all persons who do not have reliable clinical history of varicella infection, or serological evidence of varicella zoster virus (VZV) infection; health-care workers and family contacts of immunocompromised persons, those who live or work in environments where transmission is likely (e.g., teachers of young children, day care employees, and residents and staff members in institutional settings), persons who live or work in environments where VZV transmission can occur (e.g., college students, inmates and staff members of correctional institutions, and military personnel), adolescents and adults living in households with children, women who are not pregnant but who may become pregnant in the future, international travelers who are not immune to infection. Note: Greater than 90% of U.S. born adults are immune to VZV. Do not vaccinate pregnant women or those planning to become pregnant in the next 4 weeks. If pregnant and susceptible, vaccinate as early in postpartum period as possible. *MMWR* 1996; 45(RR-11):1-36, *MMWR* 1999; 48(RR-6):1-5.
- 9. Meningococcal vaccine (quadrivalent polysaccharide for serogroups A, C, Y, and W-135)**—Consider vaccination for persons with medical indications: adults with terminal complement component deficiencies, with anatomic or functional asplenia. Other indications: travelers to countries in which disease is hyperendemic or epidemic ("meningitis belt" of sub-Saharan Africa, Mecca, Saudi Arabia for Hajj). Revaccination at 3-5 years may be indicated for persons at high risk for infection (e.g., persons residing in areas in which disease is epidemic). Counsel college freshmen, especially those who live in dormitories, regarding meningococcal disease and the vaccine so that they can make an educated decision about receiving the vaccination. *MMWR* 2000; 49 (RR-7):1-20. Note: The AAFP recommends that colleges should take the lead on providing education on meningococcal infection and vaccination and offer it to those who are interested. Physicians need not initiate discussion of the meningococcal quadrivalent polysaccharide vaccine as part of routine medical care.

# Recommended Immunizations for Adults with Medical Conditions, United States, 2002-2003

For all persons in this group    
  Catch-up on childhood vaccinations    
  For persons with medical / exposure indications    
  Contraindicated

Medical Conditions ▼	Vaccine ►	Tetanus-Diphtheria (Td)*	Influenza	Pneumococcal (polysaccharide)	Hepatitis B*	Hepatitis A	Measles, Mumps, Rubella (MMR)*	Varicella*
Pregnancy		A						
			B	C		D		
Diabetes, heart disease, chronic pulmonary disease, chronic liver disease, including chronic alcoholism								
Congenital immunodeficiency, leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimetabolites, radiation or large amounts of corticosteroids				E				F
Renal failure / end stage renal disease, recipients of hemodialysis or clotting factor concentrates				E	G			
Asplenia including elective splenectomy and terminal complement component deficiencies				E, H, I				
HIV infection				E, J			K	

- A. If pregnancy is at 2<sup>nd</sup> or 3<sup>rd</sup> trimester during influenza season.
- B. Although chronic liver disease and alcoholism are not indicator conditions for influenza vaccination, give 1 dose annually if the patient is ≥ 50 years, has other indications for influenza vaccine, or if the patient requests vaccination.
- C. Asthma is an indicator condition for influenza but not for pneumococcal vaccination.
- D. For all persons with chronic liver disease.
- E. Revaccinate once after 5 years or more have elapsed since initial vaccination.
- F. Persons with impaired humoral but not cellular immunity may be vaccinated. *MMWR* 1999; 48 (RR-06): 1-5.
- G. Hemodialysis patients: Use special formulation of vaccine (40 ug/mL) or two 1.0 mL 20 ug doses given at one site. Vaccinate early in the course of renal disease. Assess antibody titers to hep B surface antigen (anti-HBs) levels annually. Administer additional doses if anti-HBs levels decline to <10 milliinternational units (mIU)/ mL.
- H. Also administer meningococcal vaccine.
- I. Elective splenectomy: vaccinate at least 2 weeks before surgery.
- J. Vaccinate as close to diagnosis as possible when CD4 cell counts are highest.
- K. Withhold MMR or other measles containing vaccines from HIV-infected persons with evidence of severe immunosuppression. *MMWR* 1996; 45: 603-606, *MMWR* 1992; 41 (RR-17): 1-19.

# Vaccine Administration Record for Adults

Patient name: \_\_\_\_\_

Birthdate: \_\_\_\_\_

Chart number: \_\_\_\_\_

Before administering any vaccines, give the patient copies of all pertinent Vaccine Information Statements (VISs) and make sure he/she understands the risks and benefits of the vaccine(s). Update the patient's personal record card or provide a new one whenever you administer vaccine.

Vaccine	Type of Vaccine* (generic abbreviation)	Date given (mo/day/yr)	Route	Site given (RA, LA)	Vaccine		Vaccine Information Statement		Signature/ initials of vaccinator
					lot #	mfr.	Date on VIS <sup>§</sup>	Date given <sup>§</sup>	
Tetanus and Diphtheria (e.g., Td)			IM						
			IM						
			IM						
			IM						
			IM						
Hepatitis A <sup>†</sup> (e.g. HepA, HepA-HepB)			IM						
			IM						
			IM						
Hepatitis B <sup>†</sup> (e.g., HepB, HepA-HepB)			IM						
			IM						
			IM						
Measles, Mumps, Rubella (MMR)			SC						
			SC						
Varicella (Var)			SC						
			SC						
Pneumococcal** (PPV)			IM•SC						
			IM•SC						
Influenza (Flu)			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
			IM						
Other									
Other									

\*Record the generic abbreviation for the type of vaccine given (e.g., PPV, HepA-HepB), *not* the trade name.

† For combination vaccines, fill in the row for each individual antigen composing the combination.

§ Record the publication date of each VIS as well as the date it is given to the

patient. According to federal law, VISs must be given to patients before administering each dose of Td, MMR, varicella, or hepatitis B vaccine.

\*\* Some high-risk patients need a one-time revaccination with pneumococcal polysaccharide vaccine (PPV).

# Don't Be Guilty of These Errors in Vaccine Storage and Handling

The following are frequently reported errors in vaccine storage and handling. Some of these errors are much more serious than others, but none of them should occur. Be sure your clinic or practice is not making errors such as these.

## **Error #1: Designating only one person in the office to be responsible for storage and handling of vaccines, instead of a minimum of two.**

It's important to train at least one back-up person to learn proper storage and handling of vaccines. The back-up person should be familiar with all aspects of vaccine storage and handling, including knowing how to handle vaccines when they arrive, how to properly record refrigerator and freezer temperatures, and what to do in case of an equipment problem or power outage.

## **Error #2: Recording temperatures only once per day.**

Temperatures fluctuate throughout the day. Temperatures in the refrigerator and freezer should be checked at the beginning and end of the day to determine if the unit is getting too cold or too warm. Ideally, you should have continuous thermometers that measure and record temperatures all day and all night. A less expensive alternative is to purchase maximum/minimum thermometers. It's also a good idea to record the room temperature on your temperature log in case there is a problem with the refrigerator or freezer temperature. This information may be helpful to the vaccine company's telephone consultant in ascertaining whether your vaccine can still be used.

## **Error #3: Recording temperatures for only the refrigerator or freezer.**

If your facility administers varicella vaccine, you should have thermometers in both the refrigerator and the freezer. Rather than buying cheap thermometers that may not accurately measure the temperature, buy quality thermometers that will last for years.

## **Error #4: Documenting out-of-range temperatures on vaccine temperature logs and not taking action.**

Documenting temperatures is not enough. Acting on the information is even more important! So, what should you do? Notify your supervisor whenever you have an out-of-range temperature. Safeguard your vaccines by moving them to another location and then determine if they are still viable. Check the condition of the unit for problems. Are the seals tight? Is there excessive lint or dust on the coils? After you have made the adjustment, document the date, time, temperature, what the problem was, the action you took, and the results of this action. Recheck the temperature every two hours. Call maintenance or a repair person if the temperature is still out of range.

## **Error #5: Throwing away temperature logs at the end of every month.**

It's important that you keep your temperature logs for at least three years. As the refrigerator ages, you can track recurring problems. If

temperatures have been documented out of range, you can determine how long this has been happening and take appropriate action. It's also a great way to lobby for a new refrigerator.

## **Error #6: Storing vaccine in the wrong part of the refrigerator (e.g., vegetable bin, plastic container, the door, bottom, or near the cold air outlet from the freezer).**

The temperature in these areas may differ significantly from the temperature in the body of the refrigerator. Always place vaccines on the shelves in open, labeled containers, so that air can circulate around the vaccines.

## **Error #7: Storing varicella vaccine in a dorm-style refrigerator.**

Varicella must be stored in a freezer that has its own external door separate from the refrigerator. No matter how hard you try to adjust the temperature to +5°F in a dorm-style refrigerator's freezer, you won't be able to reach this low temperature in the freezer, and you'll probably freeze the rest of your vaccines in the refrigerator!

## **Error #8: Inadvertently leaving the refrigerator or freezer door open or having inadequate seals.**

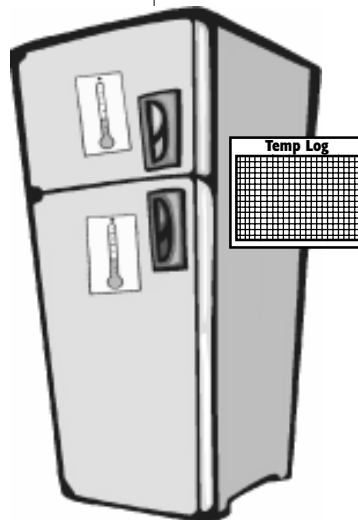
Remind staff to close the unit doors tightly each time they open them. Also, check the seals on the doors on a regular schedule, and if there is any indication the door seal may be cracked or not sealing properly, have it replaced. The cost of replacing a seal is much less than replacing a box of pneumococcal conjugate or varicella vaccine.

## **Error #9: Discarding multi-dose vials 30 days after they are opened.**

Don't discard your vaccines prematurely. Almost all multi-dose vials of vaccine have preservatives in them and can be used until the expiration date on the vial unless there is visible contamination. However, you must discard multi-dose vials of reconstituted vaccine (e.g., meningococcal, yellow fever) if they are not used within a defined period after reconstitution. Refer to the vaccine package inserts for additional information.

## **Error #10: Not having emergency plans for a power outage or natural disaster.**

Every clinic should have a written Disaster Recovery Plan that identifies a refrigerator with a back-up generator in which to store vaccine in the event of a power outage or natural disaster. Consider contacting a local hospital or similar facility to be your back-up location if you should need it.





**IAC's  
"Ask the  
Experts"  
team  
from  
CDC**



William L. Atkinson, MD, MPH



Linda A. Moyer, RN



Harold S. Margolis, MD

rash. The infected person is contagious until the last smallpox scab falls off.

***If someone is exposed to smallpox, is it too late to get a vaccination?***

Vaccination within 3 days of exposure will completely prevent or significantly modify smallpox in the vast majority of persons. Vaccination 4 to 7 days after exposure likely offers some protection from disease or may modify the severity of disease.

***Is it possible for people to get smallpox from the vaccination?***

No. The smallpox vaccine does not contain smallpox virus and cannot spread or cause smallpox. However the vaccine does contain another virus called vaccinia, which is "live" in the vaccine. Because the virus is live, it can spread to other parts of the body or to other people from the vaccine site. This can be prevented through proper care of the vaccination site (e.g., hand washing and careful disposal of used bandages).

***Is it possible to get vaccinia, the virus in the vaccine, from someone who has recently been vaccinated?***

Yes. Vaccinia is spread by touching a vaccination site before it has healed or by touching bandages or clothing that have become contaminated with live virus from the vaccination site. Vaccinia is not spread through airborne contagion. The vaccinia virus may cause rash, fever, and head and body aches.

**VACCINATE ADULTS correction policy**

The Immunization Action Coalition works tirelessly to ensure the accuracy of the information we make available. At times, however, mistakes occur and we welcome your helpful review of our content. If you find an error, please notify us immediately. We publish notification of significant errors in **VACCINATE ADULTS!** and on our free e-mail announcement service **IAC EXPRESS**. Be sure you're signed up for this service. Visit [www.immunize.org/express](http://www.immunize.org/express) to sign up. Alternatively, you can subscribe by sending an e-mail message to [express@immunize.org](mailto:express@immunize.org). Then enter the word **SUBSCRIBE** in the "Subject:" field.

***Who should NOT get smallpox vaccine?***

People who should not get the vaccine include anyone who is allergic to the vaccine or any of its components (polymyxin B, streptomycin, chlor-tetracycline, neomycin); pregnant women; women who are breastfeeding; people who have, or have had, skin conditions (especially eczema and atopic dermatitis); and people with weakened immune systems, such as those who have received a transplant, are HIV positive, are receiving treatment for cancer, or are taking medications (like steroids) that suppress the immune system. In addition, persons with a household or other close contact who is pregnant, currently has or has a history of eczema/atopic dermatitis (irrespective of disease severity or activity), or who is immunosuppressed should not be vaccinated. Also individuals younger than 12 months of age should not get the vaccine. Additionally, the Advisory Committee on Immunization Practices (ACIP) advises against non-emergency use of smallpox vaccine in children younger than 18 years of age. Also, people who are using steroid drops in their eyes should wait until they are no longer using the medication to get the vaccine. In addition, people who have been diagnosed by a doctor as having a heart condition with or without symptoms, including conditions such as previous myocardial infarction (heart attack), angina (chest pain caused by lack of blood flow to the heart), congestive heart failure, and cardiomyopathy, stroke or transient ischemic attack (a "mini-stroke" that produces stroke-like symptoms but no lasting damage), chest pain or shortness of breath with activity (such as walking up stairs), or other heart conditions being treated by a doctor should not get the vaccine at this time. In addition, individuals who have 3 or more of the following risk factors should not get the vaccine at this time: high blood pressure diagnosed by a doctor; high blood cholesterol diagnosed by a doctor; diabetes or high blood sugar diagnosed by a doctor; a first degree relative (for example, mother, father, brother or sister) with a heart condition before the age of 50; and/or, currently a cigarette smoker. (These may be temporary exclusions and may change as more information is gathered.)

(continued on page 10)

**Check your state's rates**

Here are the current U.S. immunization rates from the BRFSS\* (MMWR, 11/15/02).

State	Influenza**	Pneumococcal†
AL	65.9	60.3
AK	62.8	65.3
AZ	61.8	65.6
AR	63.2	59.0
CA	68.9	59.6
CO	77.4	68.6
CT	69.1	63.3
DE	67.6	68.9
DC	55.5	49.0
FL	54.9	58.1
GA	62.2	57.9
HI	79.0	63.7
ID	65.1	60.3
IL	62.2	56.7
IN	65.7	60.2
IA	72.8	65.9
KS	68.5	62.9
KY	60.9	55.1
LA	56.1	49.5
ME	71.5	65.0
MD	67.3	62.3
MA	70.6	63.5
MI	60.4	56.6
MN	70.1	62.9
MS	61.8	55.7
MO	67.5	56.0
MT	73.1	67.9
NE	70.1	61.2
NV	63.3	66.3
NH	69.4	62.7
NJ	64.5	58.9
NM	70.0	62.7
NY	62.5	55.9
NC	66.1	65.8
ND	70.0	64.2
OH	63.4	59.3
OK	72.7	66.1
OR	71.7	70.9
PA	63.8	59.5
RI	72.6	67.0
SC	66.2	57.9
SD	74.1	59.2
TN	65.6	55.4
TX	61.8	58.0
UT	68.7	67.3
VT	71.5	67.3
VA	65.3	60.1
WA	72.5	66.8
WV	61.7	61.3
WI	70.4	65.6
WY	69.6	68.4
<b>Total</b>	<b>64.9</b>	<b>60.0</b>

\* BRFSS: Behavioral Risk Factor Surveillance System is a random-digit-dialed telephone survey of U.S. adults to gather data. (MMWR, 11/15/02)

\*\* Percentage of ≥65-year-olds who report receiving influenza vaccine in the past year.

† Percentage of ≥65-year-olds who report ever having received pneumococcal vaccine.

## Hepatitis A and B

by Harold S. Margolis, MD, and Linda Moyer, RN

### How much protection is provided for babies, teens, and adults after each dose of hepatitis B vaccine?

The data depicted below represent the percentage of persons at various ages who develop anti-HBs of at least 10 mIU/mL after their first, second, and third doses of hepatitis B vaccine.

Dose	Infants*	Teens and Adults**
#1	16-40%	20-30%
#2	80-95%	75-80%
#3	98-100%	90-95%

\*Pre-term infants under 2 kg have been shown to respond to vaccination less often.

\*\*Factors that may lower vaccine response rates are age >40 years, male gender, smoking, obesity, and immune deficiency.

### How often should I test health care workers after they've received the hepatitis B vaccine series to make sure they're protected?

Postvaccination testing should be done 1–2 months after the last dose of hepatitis B vaccine. If adequate anti-HBs ( $\geq 10$  mIU/mL) is present, nothing more needs to be done. Periodic testing or periodic boosting is not needed. If the postvaccination test result is less than 10 mIU/mL, the vaccine series should be repeated and then test 1–2 months after the second series. This information should be recorded in the person's health record.

### If a health care worker (HCW) had 3 doses of hepatitis B vaccine but never had post-vaccination testing, should I test them now?

No. In this scenario, a HCW does not need to be tested unless he or she has an exposure. If an exposure occurs, refer to the updated recommendations for hepatitis B postexposure prophylaxis (*Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis*, 6/29/01). In addition to following these guidelines, if prophylaxis (HBIG and a booster dose of vaccine) is indicated, the person should receive postvaccination testing 3–6 months after the doses because testing at an earlier time might only measure passive antibody derived from HBIG. This postvaccination anti-HBs test result should be recorded in the person's health record.

### Before reading the ACIP recommendations that say not to do this, we tested our employees for hepatitis B immunity (anti-HBs) and some people were not immune, even though they had all completed a 3-dose series. What should we do now?

These persons might have just lost detectable anti-HBs over time, but are still protected. You can either follow the answer to the previous question

### How do I interpret some of the common hepatitis B panel results?

Tests	Results	Interpretation
HBsAg anti-HBc anti-HBs	negative negative negative	susceptible
HBsAg anti-HBc anti-HBs	negative negative positive with $\geq 10$ mIU/mL*	immune due to vaccination
HBsAg anti-HBc anti-HBs	negative positive positive	immune due to natural infection
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	chronically infected
HBsAg anti-HBc anti-HBs	negative positive negative	four interpretations possible†

\*Postvaccination testing, when it is recommended, should be performed 1–2 months following dose #3.

- †
1. May be recovering from acute HBV infection.
  2. May be distantly immune and the test is not sensitive enough to detect a very low level of anti-HBs in serum.
  3. May be susceptible with a false positive anti-HBc.
  4. May be chronically infected and have an undetectable level of HBsAg present in the serum.

or give one dose of vaccine, test in 1 month and if anti-HBs is adequate ( $\geq 10$  mIU/mL), nothing further needs to be done. If anti-HBs is less than 10 mIU/mL, complete the second series (2 more doses) and test 1–2 months after the last dose and record the result in the person's health record.

### I want to be able to start vaccinating high-risk adults against hepatitis B in our clinic, but we know that many of them are uninsured or have minimal insurance coverage. Is there any way that we can get free vaccine from CDC?

The federal Vaccines For Children (VFC) program provides free vaccine for qualified children and teens under 19 years of age. Information on this program is available at [www.cdc.gov/nip/vfc](http://www.cdc.gov/nip/vfc). In addition, some states have special programs that make hepatitis A and/or B vaccines available for certain groups of individuals with risk factors. Check with your state immunization program manager or hepatitis coordinator on the availability of low-cost or free vaccine. A list of state immunization program managers and hepatitis coordinators is available at [www.immunize.org/coordinators](http://www.immunize.org/coordinators). ♦

## Hepatitis A and B lab tests

### Hepatitis A lab nomenclature

**anti-HAV:** *Antibody to hepatitis A virus.* This diagnostic test detects total antibody of both IgG and IgM subclasses of HAV. Its presence indicates either acute or resolved infection, or vaccine-induced immunity.

**IgM anti-HAV:** *IgM antibody subclass of anti-HAV.* Its presence indicates a recent infection with HAV. It is used to diagnose acute hepatitis A.

### Hepatitis B lab nomenclature

**HBsAg:** *Hepatitis B surface antigen* is a marker of infectivity. Its presence indicates either acute or chronic HBV infection.

**anti-HBs:** *Antibody to hepatitis B surface antigen* is a marker of immunity. Its presence indicates an immune response to HBV infection, an immune response to vaccination, or the presence of passively acquired antibody. (It is also known as **HBsAb**, but this abbreviation is best avoided since it is often confused with abbreviations such as HBsAg.)

**anti-HBc:** *Antibody to hepatitis B core antigen* is a marker of acute, chronic, or resolved HBV infection. It is *not* a marker of vaccine-induced immunity. It may be used in prevaccination testing to determine previous exposure to HBV infection. (It is also known as **HBcAb**, but this abbreviation is best avoided since it is often confused with other abbreviations.)

**IgM anti-HBc:** *IgM antibody subclass of anti-HBc.* Positivity indicates recent infection with HBV ( $\leq 6$  mos). Its presence indicates acute infection.

**IgG anti-HBc:** *IgG antibody subclass of anti-HBc* is a marker of past or current infection with HBV. If it and HBsAg are both positive (in the absence of IgM anti-HBc), this indicates chronic HBV infection.

**HBeAg:** *Hepatitis B "e" antigen* is a marker of a high degree of HBV infectivity, and it correlates with a high level of HBV replication. It is primarily used to help determine the clinical management of patients with chronic HBV infection.

**Anti-HBe:** *Antibody to hepatitis B "e" antigen* may be present in an infected or immune person. In persons with chronic HBV infection, its presence suggests a low viral titer and a low degree of infectivity.

**HBV-DNA:** *HBV Deoxyribonucleic acid* is a marker of viral replication. It correlates well with infectivity. It is used to assess and monitor the treatment of patients with chronic HBV infection.

# Adult Resources

## Brochures, videos, and more



### Before you order, remember . . .

All our materials are camera-ready, copyright free, and reviewed by national experts! Some are in other languages as well as in English. You can order one of any item and make as many copies as you need (including videos).

**Support the Coalition!** With a contribution of \$60 or more, we'll send you all the print and video materials listed on this page, as well as our brightly colored mousepad. Your contribution will keep you on our mailing list and help us produce future issues of **VACCINATE ADULTS!**

Qty.	Materials for your patients (order one, make copies)	Amt.
___ P4012	Reliable sources of immunization information .....	\$1
___ P4030	Vaccinations for adults: <input type="checkbox"/> En <input type="checkbox"/> Sp .....	\$1/ea
___ P4035	Immunizations . . . not just kids' stuff: <input type="checkbox"/> En <input type="checkbox"/> Sp .....	\$1/ea
___ P4036	Do I need any vaccinations today? .....	\$1
___ P4041	Shots for adults with HIV .....	\$1
___ P4042	Vaccinations for adults with hepatitis C .....	\$1
___ P4070	Chickenpox isn't just a rash: <input type="checkbox"/> En <input type="checkbox"/> Sp <input type="checkbox"/> Vi .....	\$1/ea
___ P4075	Hep A, B, C: Learn the differences: <input type="checkbox"/> En <input type="checkbox"/> Tu .....	\$1/ea
___ P4080	Hepatitis A is a serious disease: <input type="checkbox"/> En <input type="checkbox"/> Sp <input type="checkbox"/> Vi .....	\$1/ea
___ P4090	Questions frequently asked about hepatitis B .....	\$1
___ P4112	1000s of sexually active people get hep B: <input type="checkbox"/> En <input type="checkbox"/> Sp .....	\$1/ea
___ P4113	If you have sex, read this .....	\$1
___ P4115	Hepatitis B . . . 100 times easier to catch than HIV: <input type="checkbox"/> En <input type="checkbox"/> Tu .....	\$1
___ P4116	You don't have to go all the way to get hepatitis A .....	\$1
___ P4120	Do you have chronic hepatitis B? <input type="checkbox"/> En <input type="checkbox"/> Sp <input type="checkbox"/> Ch <input type="checkbox"/> Tu .....	\$1/ea
___ P4170	If you were born in any of these places: <input type="checkbox"/> En <input type="checkbox"/> Ab <input type="checkbox"/> Am <input type="checkbox"/> Ca <input type="checkbox"/> Ch <input type="checkbox"/> Fa <input type="checkbox"/> Hm <input type="checkbox"/> Ko <input type="checkbox"/> La <input type="checkbox"/> Ru <input type="checkbox"/> So <input type="checkbox"/> Ti <input type="checkbox"/> Vi .....	\$1/ea
___ P4190	Hepatitis B info for Asian and Pacific Islander Americans .....	\$1

Qty.	Materials for your clinic staff (order one, make copies)	Amt.
___ P2011	Summary of recommendations for adult immunization: <input type="checkbox"/> En <input type="checkbox"/> Tu .....	\$1
___ P2013	Give these people influenza vaccine! .....	\$1
___ P2015	Pneumococcal vaccine: Who needs it, and who needs it again? .....	\$1
___ P2019	Vaccine & related products distributed in the U.S., 2003 .....	\$1
___ P2020	How to administer IM and SC injections .....	\$1
___ P2021	Ask the experts .....	\$5
___ P2023	Vaccine administration record for adults .....	\$1
___ P2027	It's federal law! You must give your patients current VISs .....	\$1
___ P2028	The truth about using VISs .....	\$1
___ P2045	Tips to improve your clinic's immunization rates .....	\$1
___ P2058	Vaccinate don't vacillate! Varicella kills .....	\$1
___ P2060	Hospitals and doctors sued for failing to immunize .....	\$1
___ P2081	Hepatitis A and B vaccine schedules and doses .....	\$1
___ P2100	No risk?? No way!! .....	\$1
___ P2109	Hepatitis B and the health care worker .....	\$1
___ P2110	Hepatitis B facts: testing and vaccination .....	\$1
___ P2164	Management of chronic hepatitis B in children & adults .....	\$5
___ P2180	Tracking hepatitis B patients and their contacts .....	\$1
___ P2190	Are you at risk for hepatitis A? <input type="checkbox"/> En <input type="checkbox"/> Sp <input type="checkbox"/> Tu .....	\$1
___ P2191	Are you at risk for hepatitis B? <input type="checkbox"/> En <input type="checkbox"/> Sp <input type="checkbox"/> Tu .....	\$1
___ P2192	Are you at risk for hepatitis C? <input type="checkbox"/> En <input type="checkbox"/> Sp <input type="checkbox"/> Tu .....	\$1
___ P3035	Checklist for safe vaccine handling and storage .....	\$1
___ P3036	Don't be guilty of these errors in vaccine storage and handling .....	\$1
___ P3039	Protect your vaccines: Fahrenheit & Celsius temperature log .....	\$1
___ P4065	Screening question for adult IZ: <input type="checkbox"/> En <input type="checkbox"/> Sp <input type="checkbox"/> Ch <input type="checkbox"/> Hm <input type="checkbox"/> Tu .....	\$1
___ P4140	Patient notification letter regarding hepatitis B test results .....	\$1

### Videos

___ V2010	How to Protect Your Vaccine Supply .....	\$10
___ V2020	Immunization Techniques: Safe, Effective, Caring .....	\$15

### Photos, slides, and more

___ R2005	Adult immunization record cards: 250 cards/box; 1 box—\$25; 2 boxes—\$45; 3 boxes—\$60; 4 boxes—\$70 .....	\$
___ R2006	Adult immunization record card w/ smallpox vaccine: 250 cards/box; 1 box—\$40; 2 boxes—\$75; 3 boxes—\$105; 4 boxes—\$130 .....	\$
___ R2065	Directory of Immunization Resources .....	\$10
___ T2011–2015	Unprotected people stories: Vols. 1–5 .....	\$5/all

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# Protect Your Patients: Three Timely Suggestions



Deborah L. Wexler, M.D.  
IAC Executive Director

Dear Colleagues:

Here are three ideas for improving the immunization services you provide.

## Plan your fall influenza program now!

Assemble your team now and designate a “champion”—an individual who will coordinate your fall influenza vaccination program. Planning and teamwork are critical. The next step is to estimate the number of patients and staff who will need flu vaccine and place your order without delay.

A top priority should be vaccinating your clinic staff against influenza. CDC estimates that only one-third of U.S. health care workers are vaccinated

annually against influenza — a national disgrace. This means that two-thirds of health care workers are unnecessarily putting patients’ lives at risk every year. We need to be giving them quality health care, not influenza.

According to the latest CDC data, an appallingly low 64.9% of people age 65 and older were vaccinated against influenza in 2001. So we have lots of sleeves to roll up (after we roll up our own) in order to meet this age group’s Healthy People 2010 goal for influenza vaccination, which is 90%. Check your state’s influenza immunization rates on page 9.

Try these useful resources to help make your program more successful.

- CDC’s National Immunization Program: [www.cdc.gov/nip/flu](http://www.cdc.gov/nip/flu)
- Immunization Action Coalition: [www.immunize.org/influenza](http://www.immunize.org/influenza)

## Order Immunization Techniques: Safe, Effective, Caring video

To be 100% sure that your staff is fully trained in vaccine administration techniques, follow the path of thousands of others who have ordered *Immunization Techniques: Safe, Effective, Caring*. This recent video was developed by the State of California Immunization Branch over a two-year period of consultation with a national team of expert technical advisors. The video instructs your staff on intramuscular and subcutaneous vaccines and appropriate needle

lengths and injection sites for different vaccines for all ages of patients, and much more. At \$15 a copy, the video is a bargain. Staff can view it as often as necessary. (I recommend every staff member who administers vaccines view it at least once a year.) There are three easy ways to order:

- Online at [www.immunize.org/iztech](http://www.immunize.org/iztech)
- By mail or fax using the Adult Resources Order Form on page 11
- By contributing to IAC at a \$60 level (or higher) and receiving the video along with a complete packet of IAC’s camera-ready, copyright-free adult immunization materials, all reviewed by CDC for technical accuracy.

## Order Adult Immunization Record Cards

It is important to make it easy for adult patients to keep track of their immunizations. Too many adults are unsure if they’re up to date on their Td boosters, and an astonishing number of people age 65 and older don’t know if they need pneumococcal vaccine. The unique and popular IAC adult immunization record card (reviewed by CDC) lists all of the immunizations an adult is likely to need, helping prompt patients to ask for necessary vaccinations. The bright yellow cards are credit-card size and fit in a wallet. Printed on rip-proof, smudge-proof, water-proof paper, the cards are designed to last a lifetime. View them online at: [www.immunize.org/adultizcards/pictures.htm](http://www.immunize.org/adultizcards/pictures.htm) We’ve distributed more than one million cards with tremendously positive feedback. If you would like to sample them, send an email request to [admin@immunize.org](mailto:admin@immunize.org), or order a box of 250. If you’re unhappy with them for any reason, we will provide a full refund. Order boxes of cards in either of two ways:

- Online at [www.immunize.org/adultizcards](http://www.immunize.org/adultizcards)
- By mail or fax using the Adult Resources Order Form on page 11.

Please consider ordering these useful resources, as well as making a much needed contribution so that we can continue to help you keep vaccinating adults!

Deborah L. Wexler, M.D.  
Executive Director

### Thank you, CDC!

Your technical and financial assistance through the National Immunization Program and the Division of Viral Hepatitis, National Center for Infectious Diseases, is invaluable.

### Thank you, immunization workers!

Your financial support and your comments and suggestions are crucial to our work.

A special thank you to the Mark and Muriel Wexler Foundation.

### Thank you, corporations & associations!

We are indebted to you.

- Wyeth Vaccines
- Merck & Co.
- Aventis Pasteur
- GlaxoSmithKline
- Chiron Vaccines
- Bayer Biologicals
- American Pharmacists Association

**Your support is crucial to IAC’s work to increase immunization rates. Please send your contribution in the enclosed envelope or contribute online at: [www.immunize.org/join](http://www.immunize.org/join)**

IAC receives funding from a variety of sources, both public and private, and maintains strict editorial independence.

## Immunization Action Coalition

### VACCINATE ADULTS!

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