Ask the Experts

Editor’s note: The Immunization Action Coalition thanks William L. Atkinson, MD, MPH; Linda A. Moyer, RN; and Eric E. Mast, MD, of the Centers for Disease Control and Prevention (CDC) for answering the following questions for our readers. Dr. Atkinson, medical epidemiologist at the National Immunization Program, serves as a CDC liaison to the Coalition. Ms. Moyer is an epidemiologist, and Dr. Mast is a medical epidemiologist, both at CDC’s Division of Viral Hepatitis.

Immunization questions
by William L. Atkinson, MD, MPH

I’ve heard there is now a new vaccine storage and handling video available from CDC. How do I get it?
You can get a single copy at no charge from the National Immunization Program by calling (800) 232-2522, or you can purchase one or more copies ($15 each) from IAC. Visit www.imunize.org/vachandling or call (651) 647-9009 for details. CDC is also releasing a CD version that contains a digitized copy of the video as well as other resources, such as emergency planning for equipment failure, vaccine shipment, preparation, and disposal procedures. The CD will be available in the next several months.

Immunization questions?
• Email nipinfo@cdc.gov
• Call CDC’s Immunization Information Hotline at (800) 232-2522
• Call your state health dept. (phone numbers at www.imunize.org/coordinators)

How long is a vaccine dose viable if it has been stored in the refrigerator in a syringe?
Disposable syringes are meant for administration of immunobiologics, not for storage. The National Immunization Program recommends that vaccines that have been drawn into syringes be discarded at the end of the clinic day.

If an employee has 2 documented MMRs but has negative titers for one or more of these diseases, should I give an additional MMR dose?
The Advisory Committee on Immunization Practices (ACIP) does not routinely recommend more than two doses of MMR. A negative serology after two documented doses of MMR probably represents a false negative (i.e., antibody titer too low to detect with commercial tests). However, it is theoretically possible to have true 2-dose vaccine failure. If a person is found to have a negative serology after two documented doses of MMR, it may be prudent to administer one additional dose of MMR. You should also cease doing postvaccination serologic testing if an employee has two documented doses of MMR. See www.cdc.gov/mmwr/PDF/rr/rr4708.pdf for more information.

I heard that ACIP recently revised its recommendations for use of the intranasal live attenuated influenza vaccine (LAIV) in health care workers (HCWs). What did they decide?
At the February 2004 meeting, ACIP voted to recommend that HCWs for whom LAIV is not contraindicated be allowed to receive it with the exception of those who are in contact with patients who are severely immunosuppressed (i.e., persons with bone marrow transplants in protective isolation). These HCWs should receive trivalent inactivated influenza vaccine (TIV) instead. HCWs who have close contact with persons having lesser degrees of immunosuppression (e.g., persons with diabetes, persons with asthma taking corticosteroids, or persons infected with HIV) may receive either TIV or LAIV; provided there is no other contraindication. The final wording of this will be published in the ACIP statement “Prevention of Influenza” in May 2004.

We had a real panic situation last December when we ran out of influenza vaccine. What can we do to avoid this next season?
It is never too early to begin planning for this fall’s influenza vaccination program. The most important thing you can do right now is order your vaccine from your usual source. Some manufacturers
**VACCINATE ADULTS!**

**Immunization Action Coalition**

**Hepatitis B Coalition**

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**DISCLAIMER:** The information on these pages is current as of April 19, 2004.

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### ACIP statements

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

- Download individual statements from links on IAC’s website: www.immunize.org/acip
- Download individual statements from links on CDC’s website: www.cdc.gov/nip/publications/acip-list.htm
- Call CDC’s Immunization Information Hotline: (800) 232-2522

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**Influenza news**

On February 24–25, ACIP met and deliberated on the use of influenza vaccines for the 2004–2005 influenza season. Several important changes were adopted including a recommendation for vaccination of all children 6–23 months of age and all pregnant women, regardless of their stage of pregnancy. The committee voted to recommend that use of the live attenuated influenza vaccine (LAIV) should not be restricted in health care workers except those workers with contact with severely immunosuppressed persons (i.e., bone marrow transplant patients in protective isolation). These persons and their close contacts, including health care workers, should receive trivalent inactivated influenza vaccine (TIV) and not LAIV. No such restriction applies to persons who are not severely immunosuppressed, including persons with diabetes, persons with asthma taking corticosteroids, or persons infected with HIV. These changes will be included in the annual “Recommendations of the ACIP: Prevention and Control of Influenza,” which will be published in *MMWR* in May 2004.

In February, the National Foundation for Infectious Diseases issued a four-page report, “Influenza Immunization Among Health Care Workers: A Call to Action.” The report has the support of 24 health care organizations, including AAFP, AAP, and AMA. The document urges, among other key points, that measures be taken to ensure health care workers are provided convenient access to influenza vaccine and that employers of health care workers commit programs and resources toward institutionalization immunization in the workplace. In this issue of *Vaccinate Adults* (page 4), we summarize the key strategies within the report.

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**Viral hepatitis news**

On Dec. 7–9, 2003, the National Viral Hepatitis Roundtable (NVHR) held its inaugural meeting in Washington, DC, to lay the groundwork to develop a national strategy to eliminate viral hepatitis from the U.S. Approximately 140 individuals representing 120 organizations attended the meeting. For more information about NVHR, visit www.nvhr.org
New! A complete guide to vaccinating adults

“Adults Only Vaccination: A Step-by-Step Guide”

157 pages of comprehensive, practical information on ALL aspects of adult immunization

This guide is indispensable for improving vaccination practices wherever adults are immunized. Designed to help integrate immunization services into OB/Gyn settings, family planning clinics, STD clinics, and other health care settings new to vaccination, the guide is equally valuable for settings experienced in vaccine delivery. It presents clear, authoritative information on administering adult vaccines, billing, educating patients, and much more. Included are 2 videos that explain vaccine administration techniques and vaccine handling and storage, a pack of adult immunization record cards, and other useful resources.

Cost for the guide, two videos, and other valuable resources is only $75. Quantity discounts are available. To order online or for more information, visit www.immunize.org/guide. To order by fax or mail, use the order form on page 11.

Questions? Email admin@immunize.org or call (651) 647-9009.

Immunization record cards for adults!

Give all your adult patients a permanent vaccination record card from IAC. Printed on rip-proof, smudge-proof, waterproof paper, this durable canary-yellow card is sized to fit in a wallet alongside other important cards. To view the card, visit www.immunize.org/adultizcards/pictures.htm

Buy 1 box (250 cards) for $25 (first order of a 250-card box comes with a 30-day money-back guarantee)

Discounts for larger orders: 2 boxes (500 cards) $45; 3 boxes (750 cards) $60; 4 boxes (1000 cards) $70

To order, visit www.immunize.org/adultizcards, or use the order form on page 11.

(To receive sample cards, email your request to admin@immunize.org)
First do no harm. Protect your patients by getting vaccinated against influenza!

Did you get vaccinated against influenza last fall?  [ ] Yes  [ ] No

Did you make sure your staff and coworkers did?  [ ] Yes  [ ] No

If you answered “no” to either question, you may have harmed the health of your most vulnerable patients. Though health care workers encounter high-risk patients throughout the influenza season, only about one in three of us protects patients by getting immunized. That means two out of three of us contribute to the likelihood of spreading a vaccine-preventable disease that kills 36,000 persons each year in the United States and hospitalizes more than 114,000. None of us went into health care as a profession with the goal of spreading a potentially fatal disease, but spread it we do. Whether we work in medical practices, hospitals, long-term care facilities, home-care sites, or other health settings, unvaccinated health care workers are a recognized cause of influenza outbreaks. Here are two documented instances of outbreaks resulting from influenza virus transmission between health care workers and patients:

- In a neonatal intensive care unit (NICU), 19 infants were infected, six were symptomatic, and one died. Health care workers were the likely source of the spread. Only 15% of NICU staff had been immunized. (Infect Control Hosp Epidemiol. 2000;21[7]:449–54)

If you haven’t already established a vaccination program in your health care setting, you should act immediately to start one. Here are some steps you can take now:

**Persuade top management to commit to an annual employee vaccination program.**
Among the benefits of such programs are better infection control, reduced absenteeism among employees, and better delivery of health care to the patients you serve.

**Give a multidisciplinary team responsibility for developing the program.**
Make certain employees from all departments are represented in planning and implementing the vaccination program. Don’t forget to include housekeeping, dietary, maintenance staff, and others.

**Make the vaccination program convenient for all employees.**
Take the vaccination services to the employees at their workstations (e.g., by means of a rolling cart). Offer vaccination services at convenient times, including nights and weekends. Administer vaccine under a standing orders protocol. A sample protocol is available from the Immunization Action Coalition at www.immunize.org/catg.d/p3074.pdf

**Offer vaccines free of charge to all staff—full-time, part-time, and volunteers.**
When the cost barrier is removed, more employees will comply. In addition, many employees will conclude that an employer who pays for vaccination is authentically dedicated to employee and patient health and safety.

**Develop campaigns to educate employees.**
Use employee newsletters, blast emails, and staff bulletin boards to get the vaccine message out. Make the case for the influenza vaccine’s safety and efficacy. Educate employees about their potential to infect patients. Emphasize that major medical organizations—such as CDC, AAP, AAFP, AMA, and other respected groups—recommend annual vaccination of health care workers. Dispel any misinformation employees might have that has been keeping them from getting vaccinated.

**Educate health care workers to be advocates for influenza vaccination!**
LEAD BY EXAMPLE! A well-vaccinated health care staff demonstrates the importance of vaccination against influenza and attests to the staff’s commitment to preserving the health of patients. If health care providers themselves do not get vaccinated, how can we expect patients to?

MOTIVATE! Remember: the strongest motivator for a patient to be vaccinated is to have their health care provider vaccinated. One of the nation’s leading professional health and labor organizations, under the direction of the National Foundation for Infectious Diseases. To obtain a copy, go to www.nfid.org

Produced in 2002 by the Massachusetts Medical Society, MassPRO, and the Massachusetts Department of Public Health, the 32-page “Employee Flu Immunization Campaign Kit” includes step-by-step instructions, worksheets, promotional materials, and tips for conducting a successful employee influenza immunization campaign. To access a ready-to-copy (PDF) version of the kit, go to www.massmed.org/pages/flu_kit.pdf

For more information:
The information on this page is adapted from “Influenza Immunization Among Health Care Workers: A Call to Action,” developed by representatives from 24 of the nation’s leading professional health and labor organizations, under the direction of the National Foundation for Infectious Diseases. To obtain a copy, go to www.nfid.org

The February 2004 issue of the journal “Infectious Diseases in Children” includes a monograph, “Importance of Vaccinating Health Care Workers Against Influenza.” To access the monograph, go to http://sigmachildren.com Click on “Monographs” in the left column.

4  VACCINATE ADULTS!  •  May 2004 (printed 4/04)  •  1573 Selby Avenue, St. Paul, MN 55104  •  (651) 647-9009  •  www.immunize.org
Chickenpox

Chickenpox, also known as varicella, is a highly contagious disease. Caused by a virus, varicella infection can occur after direct contact with an infected person or with airborne droplets from an infected person. Prior to the availability of a vaccine in 1995, approximately 100 people died from chickenpox complications each year in the U.S. The number of cases has since declined by nearly 70%. Adults who get chickenpox often get a more severe case than children and have more complications. For example, adults are 25 times more likely than children to die from the disease or its complications. Adults who have not had chickenpox should consult their physicians regarding vaccination.

Hepatitis B

Hepatitis B is a serious liver disease caused by the hepatitis B virus (HBV). It is spread by contact with blood or other body fluids of an infected person. Though some infected persons have no symptoms, about one out of three will be very ill, with nausea, yellow-tinged skin and eyes, headache, and abdominal pain. Some people develop chronic HBV infection, which can lead to liver failure or liver cancer. About 5,000 people in the U.S. die each year from HBV-related illness.

Hepatitis B vaccine is recommended for all infants, children, and teens. It is also recommended for adults at increased risk for infection, including health care workers likely to have blood exposure, certain travelers, dialysis patients, men who have sex with men, people who have more than one sex partner in six months, people who inject illegal drugs, and household members and sexual contacts of persons with chronic HBV infection.

Hepatitis A

Hepatitis A is a viral infection of the liver that can cause fever, yellowing of the skin and the whites of the eyes, loss of appetite, nausea, and abdominal pain. It is usually spread by the fecal-oral route after close personal contact with an infected person (e.g., a household member or sexual partner). You can also become infected by eating contaminated food or drinking contaminated water. CDC estimates that about 90,000 new cases occur each year in the U.S.

Hepatitis A vaccine is recommended for some international travelers (including those traveling to Mexico), persons in communities with a history of high hepatitis A rates and periodic outbreaks, men who have sex with men, street drug users, recipients of certain blood products, and individuals with chronic liver disease.

Meningococcal disease

Meningococcal disease is caused by bacteria that infect the blood or membranes surrounding the brain and spinal cord. It can lead to brain damage, hearing loss, loss of limbs, and death. The bacteria are spread through airborne respiratory droplets or direct contact. Certain adults should be vaccinated, including those who are planning to travel to an area of the world where the disease is common or who have certain health conditions (e.g., a damaged or absent spleen). College freshmen, particularly those who live in dormitories, have a slightly increased risk of the disease and should consider vaccination.

Everyone needs vaccinations!

If you need more information, can't afford shots, or don't know where to get them, contact your local or state health department, or call the National Immunization Hotline at (800) 232-2522. You can also get more information on the Web at www.immunize.org, www.vaccineinformation.org, www.cdc.gov/nip, and www.cdc.gov/hepatitis.

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Lots of people think “shots” or immunizations are just for kids. They’re not! As an adult, you need to be protected against measles, mumps, rubella, tetanus, diphtheria, pneumococcal disease, influenza, and varicella. You may also need protection against hepatitis A and B. Your best protection against these diseases? Immunization.

Many people think diseases like diphtheria, mumps, and measles have been wiped out. This is not the case. During 1995, at least 39 percent of all reported measles cases in the United States occurred in persons 20 years of age or older.

If you were never immunized or never had these vaccine-preventable diseases, you are at risk. If you were immunized as a child, you may need updating because some immunizations lose their effectiveness over time. To find out what shots you may need or where to get immunizations, contact your doctor or local health department.

Remember...immunizations are not just kids’ stuff!

**Measles**

Though the number of cases of measles is at a record low, adults account for about one-third of cases. Measles is caused by a virus that is spread through the air or through direct contact with an infected person. Symptoms of measles usually include a high fever, rash, runny nose, red eyes, and cough.

Measles can lead to serious complications such as pneumonia and encephalitis (inflammation of the brain). A pregnant woman who contracts measles is at increased risk for miscarriage or premature labor.

The measles vaccine is routinely administered as part of the combination measles, mumps, and rubella (MMR) shot. Two doses generally provide lifelong protection.

**Mumps**

Mumps is caused by a virus that is spread by direct contact with an infected person or through the air. The use of MMR vaccine accounts for the dramatic decline in the incidence of mumps in the U.S. However, one in five adults is estimated to be susceptible to mumps (meaning they have neither had mumps nor been vaccinated against it). Adults who develop disease are more likely to have serious complications than children. Mumps vaccine is recommended for children, teens, and susceptible adults and is routinely given as part of the MMR shot.

**Rubella**

Rubella virus is spread by contact with an infected person or with articles they have used. Up to 50% of persons infected with rubella may not have symptoms. Pregnant women who get rubella, especially during the first three months of pregnancy, may miscarry or their babies may be born with birth defects or even die.

Many immigrants to the U.S. were never vaccinated. If you are unsure if you are immune to rubella, consult your health care provider. Rubella vaccine is routinely given as part of the MMR shot.

**Tetanus and diphtheria**

Tetanus, also known as lockjaw, is caused by bacteria that enter the body through a break in the skin (often a puncture wound or other injury). Tetanus causes painful muscle contractions, especially in the jaw. In recent years, fewer than 50 cases of tetanus have occurred annually in the U.S. Adults over 60 years of age are at highest risk for tetanus and complications of tetanus, including death.

Diphtheria bacteria are spread from one person to another in the droplets released when an infected person coughs or sneezes. Symptoms of diphtheria include sore throat, fever, and swollen neck glands. As the disease progresses, a membrane forms in the throat that obstructs breathing and may cause death.

**Polio**

The risk of getting polio is very small in the U.S. today because of the widespread use of polio vaccines. Adult immunization is usually not recommended unless you are traveling to a part of the world where polio still occurs. Polio virus is usually spread by the fecal-oral route.

**Influenza**

A very contagious disease that affects at least 10% of the population annually, influenza kills an average of 36,000 people in the U.S. each year. More than 90% of those who die are over 65 years of age. The symptoms of influenza include fever, chills, headache, sore throat, dry cough, runny nose, and body aches. Influenza is spread by direct contact with an infected person or through contact with the airborne virus.

Influenza vaccine is strongly recommended every fall for all people age 50 and over, for people 6 months of age and older who have chronic diseases, and for their close contacts. In addition, anyone who wants to reduce the risk of becoming ill with influenza can be vaccinated. Vaccination against influenza can be given at any time during the autumn or winter but is best when it is given in October to November, before the influenza season begins.

**Pneumococcal disease**

Pneumococcal disease is caused by bacteria that can lead to life-threatening infections, such as pneumonia, bacteremia, and meningitis. It is spread when someone comes in contact with the airborne droplets of an infected person. Influenza and pneumonia together account for nearly 66,000 deaths each year in the U.S. Up to 20,000 of these are estimated to be due to pneumococcal disease. A single dose of adult pneumococcal vaccination is recommended for all people age 65 and over, as well as for people of any age with certain chronic illnesses.
EVERYONE NEEDS VACCINATIONS!

If you can’t afford vaccinations, call your local health department or visit www.hepclinics.com and www.hepprograms.org/msm

PROTECT YOURSELF AGAINST HEPATITIS A AND HEPATITIS B...

a guide for gay and bisexual men

WHAT IS HEPATITIS B?

Hepatitis B is a sexually transmitted disease caused by a virus (HBV) that attacks the liver. The virus is found in the blood and semen of infected men and is spread in the same manner as HIV. HBV is easier to catch than HIV because it is more than 100 times more concentrated in an infected person’s blood and can exist on surfaces outside the body.

WHAT IS HEPATITIS A?

Hepatitis A is a liver disease caused by a virus (HAV). The virus is found in the feces (shit) of an infected person. It is easily spread by household or sexual contact with an infected person.

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The Immunization Action Coalition (IAC) encourages you to make and distribute copies of this brochure. If you alter it, please acknowledge that it was adapted from IAC. This brochure was developed in collaboration with Levine & Co., NYC. The technical content was reviewed by the Centers for Disease Control and Prevention.

www.immunize.org/cat2/d/p4115.pdf • Item #P4115 (4/04)

Men who have sex with men (MSM) are at increased risk of becoming infected with both the hepatitis B virus (HBV) and the hepatitis A virus (HAV). Although these viruses can be transmitted in different ways, both can be spread through sexual activity.

Hepatitis is a serious disease that can be fatal. Fortunately, both hepatitis B and hepatitis A can be prevented by safe and effective vaccines. Unfortunately, many men at risk remain unprotected.
HOW GREAT IS MY RISK OF GETTING HBV OR HAV INFECTION?
About 5% of people in the U.S. will get infected with HBV sometime during their lives. MSM are 10 to 15 times more likely to acquire HBV infection than the general population.
In 2001 an estimated 93,000 persons in the U.S. were infected with HAV. Persons who engage in anal pleasuring activities such as rimming and fingering are at increased risk.

HOW ARE HBV AND HAV SPREAD?
An HBV-infected man can spread the virus to another person by
- having unprotected anal or vaginal sex
- sharing needles for drugs, piercing, or tattooing
- coming in contact with the infected person's open sores or blood
- sharing toothbrushes, razors, nail clippers, etc.
- biting another person
HBV can also be spread by living in a household with a chronically infected person.
HAV is usually transmitted from particles of fecal material too small to be seen, for example, by eating or drinking contaminated food or water or during sex.

WHAT ARE THE SYMPTOMS OF HEPATITIS B AND HEPATITIS A?
The symptoms of both diseases are similar: extreme tiredness, nausea, fever, dark urine, bloated and tender belly, and yellowish-tinted skin and eyes. Infected persons can have no symptoms at all or be extremely ill. However, people who are infected with either HBV or HAV can spread the disease to others, whether they have symptoms or not.

DO PEOPLE FULLY RECOVER FROM HBV AND HAV INFECTIONS?
Most adults recover from HBV infection after several months and are no longer contagious. Unfortunately, about 2%-6% of adults who become infected with HBV will carry the virus in their bodies for years and remain infectious. Chronically infected people usually do not have symptoms, but are at increased risk for eventual liver failure (cirrhosis) and liver cancer and need ongoing medical care. About 1.25 million people in the U.S. (and 350 million in the world) are chronically infected.
Although HAV does not result in chronic infection, infected people can become very sick and sometimes die.

HOW SERIOUS ARE HBV AND HAV INFECTIONS?
HBV infection can cause serious liver disease, including liver failure and liver cancer. More than 5,000 people in the U.S. die every year from hepatitis B-related liver disease.
There are approximately 100 deaths each year in the U.S. from hepatitis A. About 15% of people with hepatitis A require hospitalization. Adults who become ill are often out of work for several weeks.
Becoming infected with HBV or HAV can have a major impact on a person's life. A person might be too sick to work or go to the gym for months, and should not drink alcohol. HAV and HBV infection can have serious consequences for people with HIV, as their immune systems might be compromised.

HOW CAN I PROTECT MYSELF FROM HBV INFECTION?
- Get the hepatitis B shots
- Practice safer sex
- Tell your friends at risk to get vaccinated against hepatitis B

HOW CAN I PROTECT MYSELF FROM HAV INFECTION?
- Get the hepatitis A shots
- Tell your friends at risk to get vaccinated against hepatitis A

HOW DO I KNOW IF I HAVE OR HAVE HAD HBV OR HAV INFECTION?
The only way to know for sure is to have your blood tested.

SHOULD I HAVE MY BLOOD TESTED BEFORE GETTING VACCINATED?
Discuss this with your doctor to decide if it is appropriate to perform blood tests first. If you have already been infected with HAV or HBV, getting the vaccine will not help or hurt you.

HOW MANY SHOTS DO I NEED TO BE PROTECTED AGAINST HBV AND HAV INFECTIONS?
The hepatitis B vaccine series consists of three doses spaced out over approximately 6 months.
The hepatitis A series consists of two doses given 6-18 months apart. If you started either series but didn't get all the doses, you should continue where you left off.
A combined hepatitis A and hepatitis B vaccine has been developed for adults who need protection against both HAV and HBV infections. This vaccine consists of three doses given over a 6-month period.

ARE THESE SHOTS SAFE? DO THEY HAVE ANY SIDE EFFECTS?
Both hepatitis A and hepatitis B vaccines have been proven to be safe. Globally, more than one billion hepatitis B vaccine doses have been given. Since 1995, more than seven million doses of hepatitis A vaccine have been given in the U.S. with no reports of serious health problems linked to the vaccine. Side effects might include soreness at the injection site, headache, and fatigue.

ARE THESE SHOTS EFFECTIVE?
Yes. After three doses of hepatitis B vaccine, at least 90% of healthy young adults develop immunity to HBV infection. Immune-compromised people might not respond as well to hepatitis B vaccine. They should be tested 1-2 months after the third dose of vaccine to see if they responded.
Almost 100% of people are protected from HAV infection after getting two doses of hepatitis A vaccine.

WILL HEPATITIS A OR HEPATITIS B VACCINE PROTECT ME FROM HEPATITIS C?
No. Hepatitis A, B, and C are all different viruses. The hepatitis C virus is spread through body fluids, and although it can be transmitted through sexual contact, it is most commonly acquired through injection drug use. Unfortunately, there is no hepatitis C vaccine at this time.

ARE THESE SHOTS RECOMMENDED FOR TRAVELERS?
Both HAV and HBV infection are common in many parts of the world. People traveling to any area of the world except the United States, Canada, Western Europe, Japan, New Zealand, and Australia should get vaccinated against HAV. Hepatitis B vaccine is recommended for many travelers also. Discuss this with your doctor.

WHERE CAN I RECEIVE THESE SHOTS?
Talk to your health care professional or your local public health department.
Clinics offering free or low-cost hepatitis A and hepatitis B vaccines for gay and bisexual men are listed at www.hepcinfects.com and www.hepprogram.org/msm
Standing Orders for Administering Pneumococcal Vaccine to Adults

**Purpose:** To reduce morbidity and mortality from pneumococcal disease by vaccinating all patients who meet the criteria established by the Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices.

**Policy:** Under these standing orders, eligible nurses may vaccinate patients who meet the criteria below.

**Procedure:**

1. Identify adults in need of vaccination with pneumococcal polysaccharide vaccine (PPV) based on the following criteria:
   - Age 65 years or older
   - Age 18–64 years with any of the following conditions:
     - chronic cardiovascular disease (e.g., congestive heart failure, cardiomyopathies)
     - chronic pulmonary disease (e.g., emphysema or chronic obstructive pulmonary disease [not asthma])
     - diabetes mellitus, alcoholism, chronic liver disease (cirrhosis), or cerebrospinal fluid (CSF) leaks
     - functional or anatomic asplenia (e.g., sickle cell disease, splenectomy)
     - immunosuppressive conditions (e.g., HIV infection, leukemia, congenital immunodeficiency, Hodgkin’s disease, lymphoma, multiple myeloma, generalized malignancy)
     - immunosuppressive chemotherapy (e.g., alkylating agents, antimetabolites, long-term systemic corticosteroids)
     - organ or bone marrow transplantation
     - chronic renal failure or nephrotic syndrome
     - candidate for or recipient of cochlear implant

2. Screen all patients for contraindications and precautions to PPV vaccine.
   - **Contraindications:** a history of a serious reaction (e.g., anaphylaxis) after a previous dose of PPV or to a vaccine component. For a list of vaccine components, go to www.cdc.gov/nip/publications/pink/appendices/a/excipient.pdf
   - **Precautions:** a moderate or severe acute illness with or without fever

3. Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). Although not required by federal law, it is prudent to document in the patient’s medical record or office log, the publication date of the VIS and the date it was given to the patient. Provide non-English speaking patients with a copy of the VIS in their native language, if available; these can be found at www.immunize.org/vis

4. Administer 0.5 ml PPV vaccine either IM (22–25g, 1–2” needle) or SC (23–25g, 5/8–3/4” needle).

5. Document each patient’s vaccination administration information and follow up in the following places:
   - **Medical chart:** Record the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. If vaccine was not given, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal).
   - **Personal immunization record card:** Record the date of vaccination and the name/location of the administering clinic.

6. Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications.

7. Report all adverse reactions to PPV to the federal Vaccine Adverse Event Reporting System (VAERS) at www.vaers.org or by calling (800) 822-7967. VAERS report forms are available at www.vaers.org

This policy and procedure shall remain in effect for all patients of the ______________________ clinic until rescinded or until ______________________ (date).

Medical Director’s signature: ___________________________ Effective date: ______________________

Adapted by the Immunization Action Coalition, courtesy of the Minnesota Department of Health
have already announced they will stop taking pre- 
orders in mid-May. You may need to increase your 
vaccine order. For influenza season 2004–2005, 
ACIP will recommend vaccination of all children 
6 through 23 months of age. Be sure to include 
vaccine for your facility’s health care workers as 
part of your overall campaign.

Why is it recommended that we keep 
refrigerator temperature logs for 3 years? 
It is important that you keep your temperature logs 
for at least 3 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 appro-
riate action.

**Hepatitis A and B**

by Linda A. Moyer, RN, and Eric E. Mast, MD

*We treat these employees as we don’t know if*

requested titers. Some of these titers 
returned too low (<10mIU/ml). How should 

had been vaccinated more than 4 years ago 
previously vaccinated employees the option 

started performing titers 1–2 months after the 
last dose of vaccine only within the last 4 

years. (Our employee health manual gives 
previously vaccinated employees the option of 
requesting a titer.) Several employees who 
had been vaccinated more than 4 years ago 
requested titers. Some of these titers 
returned too low (<10mIU/ml). How should 

we treat these employees as we don’t know if 
they responded to the initial vaccine series? 
Postvaccination serologic testing of health care 
workers for anti-HBs is only recommended 1 to 2 
months after completion of the primary series. 
Responders (anti-HBs level ≥10 mIU/ml) are 
protected against hepatitis B. Periodic anti-HBs test-
ing and booster doses of vaccine are not 
recommended.

Because your employees were not tested 1–2 
months after completing the primary series, it is 
not known if they had previously responded to 
hepatitis B vaccination. The preferred approach to 
managing these persons is to base interventions on 
the results of serologic testing performed at the 
time of percutaneous or permcual exposure to 
blood or body fluids. The Advisory Committee on 
Immunization Practices and the Hospital Infection 
Control Practices Advisory Committee have pub-
lished guidelines for the management of HCWs 
percutaneous or permcual exposures. These 
guidelines include postexposure anti-HBs testing

**VACCINATE ADULTS! correction policy**

IAC works tirelessly to ensure the accuracy of the 
information we provide. If you find an error, please 
notify us immediately. We publish notification of sig-
nificant errors in **VACCINATE ADULTS!** and on 
our free weekly email news and announcement ser-
vice **IAC EXPRESS**. Be sure you’re signed up for 
this service. See the box at the bottom of page 1 for 
sign-up information.

**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.

**IgM anti-HAV**: IgM antibody subclass of 
anti-HAV. Its presence indicates a recent in-
fection with HAV (≤6 mos). It is used to di-
agnose 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 infec-
tion, an immune response to vaccination, or 
the presence of passively acquired antibody. 
(It is also known as HBsAb, but this abbrevi-

ation is best avoided since it is often con-

fused with abbreviations such as HBsAg.)

**anti-HBc (total)**: 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 
HBsAb, 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 infec-
tion with HBV (≤6 mos). Its presence indi-


cates acute 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 deter-
mine the clinical management of patients with 
chronic HBV infection.

**Anti-HBe**: Antibody to hepatitis B “e” an-
tigen may be present in an infected or im-

mune person. In persons with chronic HBV 
infec-
tion, 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.
New! Essential Immunization Resources from IAC

Dear VACCINATE ADULTS reader,

If you’ve been a cover-to-cover reader of VACCINATE ADULTS, you’ve probably noticed we’ve changed the contents of this page. Most noticeably, we no longer list or sell individual copies of our print materials. We took this step because of skyrocketing paper costs and substantial increases in copying and mailing expenses. Our readers will continue to be able to download all of our print materials from our website at www.immunize.org/free. These materials are still copyright-free and ready for your immediate use.

Now, onto an exciting new development: We’ve invested in a high-quality CD creator, and will be producing up-to-the-minute CDs containing all IAC print materials in ready-to-print format in English, as well as any translations available in Spanish. In addition, the CD will also include all the federal Vaccine Information Statements (VISs) available in English and Spanish. We’re offering this Essential Immunization Resource as a special thank-you to IAC partners who choose to contribute $75 or more.

Please note that any donor, regardless of the size of the donation, will be mailed a set of our 15 most popular print pieces, such as the “Summary of Recommendations for Adult Immunization” and “Screening Questionnaire for Adult Immunization.”

Watch this page in future issues as we continue to expand our selection of Essential Immunization Resources. Because of the many requests we’ve received, we’re considering adding resources such as screening questionnaires in pads, laminated copies of essential provider pieces, and quick-reference pocket guides.

We hope these changes will better meet your needs for high-quality, user-friendly immunization tools. As always, we value your feedback. Email us at admin@immunize.org or call (651) 647-9009.

Diane C. Peterson
Associate Director for Immunization Projects

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## Essential Immunization Resources Order Form

Dear VACCINATE ADULTS reader,

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Diane C. Peterson
Associate Director for Immunization Projects

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### How You Can Support IAC!

**I want to support the Immunization Action Coalition!**

I am a [ ] new [ ] renewing contributor.

**Here is my contribution:** (includes 1-yr. subscription to Vaccinate Adults)

- [ ] $75 [ ] $50 [ ] $100 [ ] $150
- [ ] $200 [ ] $250 [ ] $500 [ ] other: $______

I’m supporting IAC at a $75 level or higher, so please send me a new CD of all IAC print materials in English and available translations in Spanish as well as VISs in English & Spanish.

I don’t need a CD, thanks!

Total contribution: $______

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**Essential Immunization Resources**

**CD-ROM of IAC print materials**

FREE with a contribution of $75 or more (see above). The CD contains all of IAC’s ready-to-print materials in English and any translations available in Spanish. Includes VISs in English & Spanish.

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Amt.</th>
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<tbody>
<tr>
<td><em>V2010</em> How to Protect Your Vaccine Supply (details p. 2)</td>
<td>$15</td>
</tr>
<tr>
<td>(One copy available free from CDC by calling (800) 232-2522)</td>
<td></td>
</tr>
<tr>
<td><em>V2020</em> Immunization Techniques: Safe, Effective, Caring (details p. 2)</td>
<td>$25</td>
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**Brand new! Adult Vaccination Guide**

- [ ] R2070 Adults Only Vaccination: A Step-by-Step Guide (details p. 3, includes the two videos listed above) $75

**Record cards and slides**

- [ ] R2005 Adult immunization record card: 250 cards/box; 1 box—$25;
  2 boxes—$45; 3 boxes—$60; 4 boxes—$70 (details p. 3) $______
- [ ] R2006 Adult immunization record card w/smallpox: 250 cards/box;
  1 box—$40; 2 boxes—$75; 3 boxes—$105; 4 boxes—$130 $______
- [ ] S3010 Vaccine-preventable diseases slide set (script included)
  [ ] En [ ] Sp (check both boxes to receive both scripts) $25

**Subscriptions to our publications**

- [ ] J2001 Vaccinate Adults, 1-yr. subscription (2 issues), FREE with a contribution $20
- [ ] J1001 Needle Tips, 1-yr. subscription (2 issues) $25
- [ ] J3001 Vaccinate Women, 1-yr. subscription (1 issue) $10

Grand Total $______

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### Payment, Shipping, and Handling Information

Prepay by credit card or check (in U.S. dollars; make check payable to Immunization Action Coalition). Purchase orders accepted. Our Federal ID# is 41-1768237. No charge for shipping within the United States. We ship by fourth-class mail; expect delivery in three weeks or less.

**Complete this form; include with order. Mail-in order:** Mail form in enclosed envelope to Immunization Action Coalition, 1573 Selby Ave., Ste. 234, St. Paul, MN 55104. Fax order: Fax form to (651) 647-9131 (credit card/purchase orders only). Questions? Call (651) 647-9009.

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Need a quick, ready-to-print copy of one of our pieces? All print materials and translations are available free online at www.immunize.org/free
Dear Colleague,

When you think about what’s really necessary to deliver immunization services, what comes to mind? Effective vaccines? Well-trained staff? Another requirement is accurate information. Sound immunization information—which is what IAC provides—is imperative to eliminate vaccine-preventable diseases.

In today’s economy, with nonprofits receiving less support than in the past, IAC is finding it increasingly difficult to continue making information services widely available. In response, we’ve made major changes to reduce our printing and mailing expenses:

• We’ve drastically reduced the number of print materials we mail to donors, and instead are making our materials available more economically on a CD (see page 11 for more information).

• We have also cut our circulation by 50% and are saving on printing and mailing costs by sending VACCINATE ADULTS to fewer of your colleagues than last year. I’m sorry to say that many of you will not receive the next issue unless we hear from you.

These savings, though significant, are not enough to offset the drop in contributions. We need financial support from readers of VACCINATE ADULTS to sustain our work.

If IAC is to continue providing you and the broad immunization community with reliable print and electronic information, we need your support. Please become our partner in eliminating vaccine-preventable diseases—make a generous contribution to IAC today!

Deborah L. Wexler, MD
Executive Director

Thank you to CDC!
CDC’s National Immunization Program and the Division of Viral Hepatitis, National Center for Infectious Diseases, provide invaluable technical and financial support.

Thank you, readers!
We greatly appreciate your financial support and your comments and suggestions.

Thank you to our major supporters!
We deeply appreciate your generosity.

• Merck & Co.
• Wyeth Vaccines
• Aventis Pasteur
• Chiron Vaccines
• MedImmune
• Bayer Biologics
• Baxter Healthcare
• American Pharmacists Association

A special thank you to the Lillian O. Bell Estate and the Mark and Muriel Wexler Foundation.

IAC receives funding from a variety of sources, both public and private, but maintains strict control over the content of its publications.

Your tax-deductible contribution will help hundreds of thousands of health professionals, parents, and patients gain access to reliable immunization information. When you contribute $75 or more, you’ll receive an extensive collection of IAC’s ready-to-print materials on a CD in English, as well as any translations available in Spanish. The CD also contains VISs in English and Spanish.

I want to contribute to the Immunization Action Coalition!

Name/Title: _______________________________________________________________
Organization: ______________________________________________________________
Address: _________________________________________________________________
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Phone and Email: ___________________________________________________________

$75 $50 $100 $150 $200 $250 other: $____

☐ I’m supporting IAC at a $75 level or higher, so please send me the CD of your print materials in English and Spanish. (Access other translations free online at www.immunize.org/free)
☐ I don’t need a CD, thanks!

You can also donate online at www.immunize.org/join

May 2004

Deborah L. Wexler, MD
IAC Executive Director

Immunization Action Coalition

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