**Temperature Monitoring — the “Vital Sign” for Vaccine Storage**

A patient’s physical exam usually begins with checking vital signs of pulse, respiratory rate, blood pressure, and temperature. But when checking your vaccine supply, only one “vital sign” — temperature — must be monitored to assure your vaccines remain viable. Regular monitoring of vaccine storage temperatures is critical to ensuring quality patient care.

The Centers for Disease Control and Prevention’s (CDC) Vaccine Storage & Handling Toolkit, at www.cdc.gov/vaccines/recs/storage/default.htm, covers topics including routine storage and handling practices, proper storage and monitoring equipment, and inventory management. The toolkit also includes CDC’s recommendation that only stand-alone units, i.e., self-contained units that only refrigerate or only freeze, be used for vaccine storage.

As a companion resource to the toolkit, CDC and the Immunization Action Coalition (IAC) have updated the popular vaccine temperature logs:
- **Vaccine Temperature Log for Refrigerator in Fahrenheit and Celsius**
- **Vaccine Temperature Log for Freezer in Fahrenheit and Celsius**

All are available at www.immunize.org/clinic/storage-handling.asp. These logs provide a convenient tool for documenting storage unit temperatures a minimum of twice each workday, as recommended by CDC. They also have space to document daily minimum/maximum temperature readings. Twice-a-day monitoring is important even if temperatures are being assessed with a digital system. This proactive approach can prevent inadvertent loss of vaccine and the potential need for revaccination by assuring that temperature excursions are identified quickly so that immediate corrective action can be taken. This physical inspection also provides an opportunity to visually examine the storage unit, reorganize any vaccines that are inadvertently misplaced, and remove any expired vaccines.

In spite of appropriate monitoring, unacceptable vaccine storage events sometimes occur. For these instances, CDC and IAC have developed a new Vaccine Storage Troubleshooting Record at www.immunize.org/catg/dp/p3041.pdf. This one-page form leads clinic staff through a series of pertinent questions so they can document both the circumstances of the event and the subsequent actions taken. Most importantly, the form helps users identify ways to prevent similar problems from occurring in the future. The form is available both as a stand-alone document and also is included as part of the vaccine temperature logs.

Be sure to use these updated resources to assist your clinic staff in monitoring storage unit temperatures, a “vital” aspect of ensuring vaccine viability.

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**Looking for Free Immunization Education Handouts for Your Patients?**

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**Ask the Experts**

IAC extends thanks to our experts, medical officer Andrew T. Kroger, MD, MPH; nurse educator Donna L. Weaver, RN, MN; and medical officer Iyabode Akinsanya-Beyso1ov, MD, MPH. All are with the National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention (CDC).

**Influenza vaccine**

**What influenza vaccine products will be available during the 2013–14 influenza season?**

Seven manufacturers now produce influenza vaccine for the U.S. market through different technologies (e.g., egg-based, cell culture-based, and recombinant hemagglutinin vaccines). The seven manufacturers and the products they have available for the upcoming season are listed below.

A series of new abbreviations will help identify the different types of vaccines available. The current abbreviations include IV for inactivated influenza vaccine, RIV for recombinant hemagglutinin influenza vaccine, LAIV for live, attenuated influenza vaccine, and cIIV4 for cell culture-based IIV. The addition of either a 3 or a 4 at the end of an abbreviation indicates if the vaccine is trivalent or quadrivalent (e.g., IIV3, RIV3, IIV4, LAIV4). The currently available products are
- Afluria (IIV3), CSL Limited
- Fluarix (IIV3, IIV4), GlaxoSmithKline
- FluLaval (IIV3, IIV4), ID Biomedical Corporation of Quebec
- FluMist (LAIV3), MedImmune
- Fluvirin (IIV3), Novartis
- Flucelvax (cIIV3), Novartis
- Flublok (RIV3), Protein Sciences Corporation
- Fluzone (IIV3, IIV4), sanofi pasteur

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**Immunization questions?**

- Call the CDC-INFO Contact Center at (800) 232-4636 or (800) CDC-INFO
- Email nipinfo@cdc.gov
- Call your state health dept. (phone numbers at www.immunize.org/coordinators)
Flu Vaccine Consent Form

**I. Information**

- The purpose of the form is to inform you about the flu vaccine.
- The vaccine is made from the following three viruses:
  - A/California/7/2009 (H1N1)pdm09-like virus
  - B/Massachusetts/2/2012-like virus
  - B/Victoria/361/2011

**II. Consent**

- I authorize the administration of the flu vaccine.

**III. Allergies**

- I have no allergies to any components of the flu vaccine.

**IV. Understood**

- I understand that the flu vaccine is effective but not foolproof.

**V. Signature**

- Signature: ___________________________

- Date: ___________________________

**Additional Information**

- Side effects of the flu vaccine include:
  - Mild fever
  - Headache
  - Muscle aches
  - Fatigue

**Contact Information**

- For questions or concerns, contact: ___________________________

**IAC’s “Ask the Experts” team from CDC**

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**Vaccinate Adults correction policy**

If you find an error, please notify us immediately by sending an email to admin@immunize.org. We publish notification of significant errors in our email announcement service. IAC Express. Be sure you’re signed up for this service. To subscribe, visit www.immunize.org/subscribe.
of Tdap for everyone except pregnant women.

In light of the ongoing pertussis outbreaks in the nation, ACIP is continuing to evaluate the need for additional pertussis protection. The Immunization Action Coalition always announces new ACIP recommendations in its free weekly electronic newsletter, IAC Express. If you’re not already one of the newsletter’s nearly 50,000 subscribers, you can sign up at www.immunize.org/subscribe.

Pneumococcal vaccine

Currently, ACIP recommends pneumococcal polysaccharide (PPSV23) for smokers age 19–64 years. Should we also vaccinate 16-year-olds who smoke?

No. Currently no data exist to indicate that people younger than 19 are at increased risk of pneumococcal disease.

Rather than giving pneumococcal conjugate vaccine (PCV13) first and waiting 8 weeks to give PPSV as recommended for an immunocompromised adult patient, we inadvertently gave both vaccines at the same visit. We are looking for guidance.

When these two vaccines are given simultaneously, each probably affects the other detrimentally. The risk of diminished responsiveness (which is “caused” by PPSV23, not PCV13) means that you should count the PPSV23 dose as valid for adults, and repeat the PCV13 dose 1 year after the PPSV23 dose was administered.

HPV vaccine

Why did Merck discontinue the registry for collecting reports of pregnant women who inadvertently received its HPV vaccine (Gardasil) during pregnancy?

Because HPV vaccine is not recommended for use during pregnancy, Merck facilitated a registry to document outcomes when its HPV vaccine (Gardasil) was inadvertently administered to pregnant women. This registry was ongoing for more than 6 years (June 2006 –April 2013), and Merck has fulfilled its FDA obligation to facilitate it. But more importantly, the data from the registry are reassuring with respect to safety after pregnancy exposures. Review of the data collected during the first 5 years of the registry does not support a causal relationship between HPV vaccine and birth defects.

Vaccine information statements

It seems CDC is changing the format of VISs. Do we have to throw our old supply away and use the new ones?

Not necessarily. CDC is in the process of re-releasing all VISs in a slightly modified format. The modified VISs have a consistent look and use consistent language in the sections common to all VISs. Modified VISs will not necessarily be new, but may simply be redesigned versions of existing VISs and have the same edition dates as existing VISs. Providers do not need to discard their existing VIS stocks when nothing but the VIS format has been changed. CDC posts information on its website to alert healthcare providers when the older version of a VIS should not be used. This information is available on CDC’s web section titled What’s New with VISs, available at www.cdc.gov/vaccines/hcp/vis/what-is-new.html.

To submit an “Ask the Experts” question . . .

You can email your questions about immunization to us at admin@immunize.org. IAC will respond to your inquiry. Because we receive hundreds of emails each month, we cannot guarantee that we will use your question in “Ask the Experts.” IAC works with CDC to compile new Q&As for our publications based on commonly asked questions. Most of the questions are thus a composite of several inquiries.