# Electronic Records May Increase Immunization

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EXPERT ANALYSIS FROM THE ANNUAL MEETING OF THE AMERICAN ACADEMY OF PEDIATRICS

SAN FRANCISCO – Displaying the influenza immunization status in an electronic clinic workflow tool was one of several factors that led to a 52% increase from 2008-2009 to 2009-2010 in the number of seasonal influenza vaccine doses that were administered in the pediatric primary care unit, according to Dr. Stuart T. Weinberg of the departments of pediatrics and biomedical informatics at Vanderbilt University Medical Center in Nashville, Tenn.

Such systems may become easier to implement because the Food and Drug Administration has announced that it may soon allow manufacturers to apply two-dimensional bar codes to vaccine bottles, Dr. Weinberg said in a presentation on computerizing immunization records at the meeting.

The topic is of growing importance as the federal government pushes the use of electronic health records. Physicians and their patients stand to gain from implementing these systems. "We don't do anything unless it improves care," he said.

At Vanderbilt, administrators added vaccination records to their proprietary EHR system. Now each time a patient registers at the medical center, the system displays information about whether the patient has been vaccinated. "The goal is that when every child comes in, we address the issue," Dr. Weinberg said.

The Vanderbilt system displays codes in different colors to indicate patients' vaccination status. "We want it to be painfully obvious in the workflow," he said.

Vaccine manufacturers are helping out by putting more and more information in bar codes on individual vials. At the presentation, Dr. Alice Loveys of the New York eHealth Collaborative demonstrated how easily a bar code reader can read the information and automatically enter it into an EHR.

Currently, the amount of information in the bar code is limited because the codes are linear. If the FDA allows two-dimensional codes, then information such as lot number, expiration date, manufacturer, and brand name might be included.

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The codes can be read with inexpensive, commercially available readers that plug into computers' USB ports, said Dr. Loveys, and it is easy to teach staff how to use them. "This is fun technology, but you have to put it in their hands," she said.

Not only does automatically entering the information save time, it can also reduce human error in transcribing what's written on a container, she said.

Another advantage of computerizing your records is that you can better estimate how much of each vaccine to buy in the future, said Dr. Loveys, who also has a private practice in Rochester, N.Y. Electronic health programs come with algorithms that are designed to do this kind of forecasting.

Complications can ensue when children receive immunizations from more than one institution. Regional data centers are beginning to collect this information, however, so that it can be collated and accessed by child care centers, camps, health centers, schools, and others who need it, the presenters said.

If you are looking to purchase a system, a good place to start is a regional extension center, which can provide advice, said Dr. Loveys, who runs such a center.

Think carefully before making a purchase, she advised. "When I see failed implementation, it's because they didn't spend enough time assessing what their needs are."

Dr. Weinberg and Dr. Loveys said that they had no disclosures. ■