



**Volume 6, Issue 6**

**June 2016**

**Mark Your Calendars:**

*Pediatrics by the Sea*  
Summer CME Conference  
June 8-11, 2016  
The Ritz Carlton, Amelia Island, FL

ACIP Meeting  
June 22-23, 2016  
Atlanta, GA

[Storage and Handling Webinar](#)  
June 29, 2016

JANNA MCWILSON MSN, RN  
EPIC IMMUNIZATION  
PROGRAM DIRECTOR  
404-881-5081  
[jmcwilson@gaaap.org](mailto:jmcwilson@gaaap.org)

SHANRITA MCCLAIN  
EPIC IMMUNIZATION  
PROGRAM COORDINATOR  
404-881-5054  
[smcclain@gaaap.org](mailto:smcclain@gaaap.org)

Experience is a hard teacher because she gives the test first, the lesson afterward.

Vern Law,  
baseball player

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**Vaccine Conversations**

Looking for new ideas about vaccines with parents? The Centers for Disease Control and Prevention has compiled a suite of handouts in collaboration with the Academy and American Academy of Family Physicians. The provider Resources for Vaccine Conversations with Parents website includes parent handouts and vaccine summary handouts to help immunization providers assess parents' needs and communicate effectively. Visit <http://1.usa.gov/1mGEO1r>

**Are you or someone you know an immunization expert?  
Do you enjoy sharing your knowledge with others?**

If you answered yes, you could become a trainer for EPIC. We provide training on the program curriculum, use of the program equipment (laptop and projector), a stipend for your time, and some great tips for presenting to adult learners.

**Please contact Shanrita McClain or Janna McWilson for more information.**

**Question of the Week**  
Issue 1246: May 18, 2016

**An expired dose of ProQuad (MMRV, Merck) was given to a patient. We assume that the repeat dose should be given in three months because the spacing between doses of a combination vaccine depends on the longest minimum interval of a component (in this case the varicella vaccine component). Is this correct?**

In the case of an expired live vaccine, the issue is not necessarily the routine minimum interval (three months in the case of varicella and ProQuad vaccines), but the interval that would prevent viral interference if the expired vaccine happened to be still viable. This interval is considered to be four weeks (28 days). The repeat dose should be administered four weeks after the expired dose.

# Male HPV vaccination rates soar with intensive QI project

By: KARI OAKES, Pediatric News Digital Network

MAY 4, 2016

BALTIMORE – A 3-year quality improvement (QI) measure succeeded in delivering the full human papillomavirus series to more than four out of five eligible boys. The high rate of completed vaccinations – nearly triple the national average – was accomplished at a clinic with a high-need population that includes many newly-arrived immigrants, said Dr. Pilar Gonzalez, a pediatrician at Mount Sinai Health System, New York.

The improvements occurred against the backdrop of a clinic where physicians and staff already had a very strong commitment to achieving high immunization rates, Dr. Gonzalez said during a poster session at the annual meeting of the Pediatric Academic Societies. “We feel this is one of the most important things we can do for our population.” To assess the efficacy of the pediatric primary care QI program, Dr. Gonzalez and her coinvestigators conducted a retrospective chart review to assess how many of the clinic’s male patients aged 13-17 years had initiated or completed the HPV series. The chart review looked back to Jan. 1, 2012, a full year before the QI initiative was implemented, and ended in December 2015.

Implementing the comprehensive QI program first involved engaging clinic staff, patients, and families through an educational curriculum that gave them facts about the HPV vaccine, and also provided information about oral, genital, and cervical cancer risks from HPV infection. The second arm of the QI project was outreach to the community. This included such interventions as Saturday vaccination clinics focused on delivering the full series to the target patients.

At the end of 2012, 50% of the 731 eligible male patients had received the full HPV vaccination series. One year later, 67% had completed the series and 24% more had started the series, for a total of 91% of eligible male patients who had received at least one HPV immunization. After 2 years of the QI project, a total of 93% of the eligible male patients had at least begun the HPV series. The final data collection in December 2015, after a full 3 years of the QI project, showed that nearly all eligible male patients – 97% – had received at least one dose of the HPV vaccination.

“At the time we designed the QI project, we did not have the data” showing good efficacy with fewer doses than the full series of three immunizations, said Dr. Gonzalez, so the initiative was focused on getting all eligible adolescent males to completion of the series.

“Educating clinical staff and families, routinely offering the vaccine during clinic visits, sending patient reminders and recalls, and creating a catch-up immunization clinic helped increase the rate of HPV vaccination,” wrote Dr. Gonzalez and her coauthors, emphasizing that success of the effort in a high-need community was really a team effort.

# Female clinicians more likely to initiate vaccinations at acute visits

Recent research in the *Journal of Adolescent Health* found that, along with other clinical characteristics related to vaccination, female clinicians were more likely to administer vaccinations to adolescents during acute care visits.

“Because little is known about gender-related differences in delivery of adolescent preventive care, we examined the relationship between clinician, child, and guardian gender and receipt of HPV vaccine compared to Tdap and MCV4 vaccines, which are not associated with a sexually transmitted infection or gender-specific diseases,” **Laura Johnson Faherty, MD, MPH**, of the Robert Wood Johnson Foundation Clinical Scholars Program at the University of Pennsylvania, and colleagues wrote.

The researchers studied electronic health records of adolescents aged 11 to 18 years who visited 27 primary care clinics in The Children’s Hospital of Philadelphia Research Network between 2009 and 2014. Faherty and colleagues included visits during and after which the first HPV vaccination was due. After adjustment, data were analyzed to estimate the proportion of capture opportunities for HPV vaccine, Tdap and MCV4 administration.

Study results showed no overall difference in the proportion of adolescents vaccinated between male and female clinicians during preventive visits. The researchers found, however, that female clinicians delivered all three vaccines significantly more often than male clinicians during acute care visits. Specifically, more HPV (2.7% vs. 1.2%;  $P < .001$ ), Tdap (6.4% vs. 4.1%;  $P = .013$ ), and MCV4 (6% vs. 3.7%;  $P = .013$ ) vaccinations were given by female clinicians as opposed to males.

The researchers wrote that parent/guardian gender was not associated with vaccination rates. Faherty and colleagues also said HPV vaccinations were more often administered to adolescent girls; however, this gender gap began to close during the study period.

“This study highlights the continued need for both male and female [clinicians to capture opportunities for initiating the HPV vaccine](#) series at acute adolescent visits,” Faherty and colleagues wrote. “Future research should confirm and further investigate the explanations for an increased ‘prevention orientation’ of female pediatric clinicians at acute visits and explore if differences exist in other preventive health care contexts.” – by *David Costill*



## Immunization improves with bidirectional data exchange between EHRs and registries

By: GREGORY TWACHTMAN, Pediatric News Digital Network

MAY 5, 2016

The implementation of bidirectional information sharing between electronic health records (EHRs) and immunization registries resulted in improved pediatric immunization coverage, according to new research in Pediatrics.

Researchers analyzed data from five practices providing pediatric primary care in the New York–Presbyterian Hospital Ambulatory Care Network 6 months before and after a 2009 implementation of a function that allowed for data from the N.Y. Citywide Immunization Registry to be downloaded directly to local practice site EHRs. Prior to that, data could only be uploaded from EHRs, and pediatricians would need to consult the registry separately to check immunization records.

Researchers found that after the implementation of bidirectional information sharing, “significant improvements in pediatric immunization coverage, a reduction in overimmunization for adolescents, and increased completeness of immunization records were observed,” Dr. **Melissa S. Stockwell**, professor at Columbia University, New York, and her colleagues, wrote in an article appearing online May 5 and scheduled for publication in the June 6 issue of Pediatrics ([doi: 10.1542/peds.2015-4335](https://doi.org/10.1542/peds.2015-4335)).

According to the research, up-to-date status increased from 75% before to 81.6% after implementation for more than 6,000 children during each period. The percentage of overimmunized decreased from 8.8% to 4.7%. Researchers suggested that the reason for the improvement was that doctors could make more informed decisions immediately about immunization rather than having to wait for family members to return for a later visit with paper immunization records.

“With full immunization data available electronically at point of care, clinicians may have felt more certain that they had accurate, complete immunization data and that the child was indeed missing the immunization,” Dr. Stockwell and her colleagues wrote. “It has been shown that children of parents who lack paper records are more likely to be underimmunized.”

### **"Preemies Get Boost in Pertussis Protection From Mom's Vaccination" *Forbes* (June 2, 2016) -**

"Getting a dose of the pertussis vaccine during pregnancy doesn't only help healthy, full-term babies-it appears it may help preemies as well. The CDC currently recommends pregnant women get a Tdap (tetanus, diphtheria, acellular pertussis) shot in their third trimester. The goal is to stimulate a fresh immune response so that the antibodies the mother makes are then passed across the placenta to the fetus, thereby giving a newborn a bit of protection against pertussis before their first DTaP vaccine at 2 months. This strategy is not only effective at reducing newborns' risk of pertussis, it's also safe for mother and baby and ensures that the mother's immunity is in tip top shape. Mothers are second only to siblings in transmitting pertussis to babies. Also known as whooping cough, or the '100-day cough,' pertussis is most dangerous in babies under 2 months old. These young infants have the highest risk of death from pertussis."

<http://www.forbes.com/sites/tarahalle/2016/06/02/preemies-get-boost-in-pertussis-protection-from-moms-vaccination/#41d237811f06>

## Two-minute video boosts pneumonia vaccinations

Many older adults don't get pneumococcal vaccination

ScienceDaily

May 14, 2016

Northwestern University

A simple two-minute video about pneumococcal vaccination sent to patients before a primary care visit tripled the likelihood they would get the vaccine, reports new Northwestern Medicine research. The vaccination can prevent severe disease from the bacteria that most commonly causes pneumonia and meningitis. Americans only receive about half of recommended preventive services, and slightly more than 60 percent of adults 65 and older receive the recommended pneumococcal vaccination.

Part of the reason is primary care physicians and practices lack the time and resources to properly educate patients during short office visits, the authors said. In addition, patients may have limited awareness regarding the need for vaccination. Individuals who are 65 and older are at increased risk of dying from pneumococcal disease, a serious infection, which can cause pneumonia, meningitis and bloodstream infections (sepsis). Every year, approximately 18,000 adults age 65 and older die from pneumococcal disease in the U.S.

The new approach of pre-visit education has the potential to automatically educate patients about necessary preventive services, providing critical general information linked to upcoming clinic visits. Such a process then allows the limited time during an office visit to be focused on a patient's specific questions and concerns.

The Northwestern study, funded by a grant from the Agency for Healthcare Research and Quality, will be presented May 14 at the 2016 Society of General Internal Medicine Annual Meeting in Hollywood, Florida. The investigators designed a two-minute video about pneumococcal vaccination, highlighting the need for vaccination across the lifespan. They programmed the electronic health record system to send patients newly eligible for the vaccine a link to an online video a week in advance of the patient's primary care visit.

"This approach demonstrates a new way for patients to receive effective, efficient education about preventive care," said Kenzie A. Cameron, the principal investigator and a research associate professor of medicine at Northwestern University Feinberg School of Medicine.

During a period of about six months, the system sent messages to 116 patients, recommending they view the educational video. Three quarters of patients opened the message. Among those patients, almost 90 percent viewed at least a part of the video and 64 percent watched the entire video. Patients who watched at least part of the video were three times more likely to receive the pneumococcal vaccine.

"It is critical to provide adults who are newly eligible for vaccination accurate information prior to offering the pneumococcal vaccination," Cameron said. Otherwise, patient attitudes, such as preconceived notions about vaccinations and incomplete information may cause individuals to initially refuse the shot, she noted. "Once patients refuse the shot, health care providers are put in the position of changing someone's response as opposed to shaping an initial response," Cameron said. "It's much more difficult."

As this study primarily was designed to learn if harnessing the power of electronic health records to send patients messages about preventive care was feasible, the next steps will be to test patient vaccination rates in a randomized trial.