IMMUNIZATIONS NEWSLETTER

PROVIDING GSA MEMBERS WITH UPDATES ON ADULT IMMUNIZATIONS

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FEATURES

News

• Introduction of the 13-valent pneumococcal conjugate vaccine in children had a moderate impact on disease in adults, according to a systematic review and meta-analysis in the July 1 issue of *Clinical Infectious Diseases* (2019;69:35–49). However, cases of nonvaccine-type invasive pneumococcal disease are on the rise, particularly in adults aged 65 years or older.

• In another study of the impact of pediatric pneumococcal vaccination, declines in target diseases were modest in older adults and not a substitute for vaccination of the adult (*Clinical Infectious Diseases*. 2019;68:1831–8). In the 75-years-and-older population, all-cause hospitalizations for pneumonia were unchanged by pediatric vaccinations, emphasizing the need for added protection through vaccination of the older adult.

Resources

• The American Lung Association’s MyShot website provides consumers with Flu Stories, “Talk to Your Doctor” tips, information on risk factors, and a flu quiz. Information on the site focuses on the dangers of influenza infection in people aged 50 years or older and those with chronic health conditions.

• The Centers for Disease Control and Prevention (CDC) has published the annual *MMWR Recommendations & Reports* on the use of influenza vaccine for the 2019–20 season. This report updates the 2018–19 recommendations of the Advisory Committee on Immunization Practices (ACIP) regarding the use of seasonal influenza vaccines. Routine annual influenza vaccination—using a licensed, recommended, and age-appropriate vaccine—is recommended for all persons aged 6 months or older who do not have contraindications.
A strong provider recommendation is the biggest predictor of whether or not a patient will receive an influenza vaccine. Personalization of the recommendation plays a part. Patients trust providers who know personal details—such as a new grandchild or a hobby—and adding that detail to why a patient should receive a flu vaccine can help lead to acceptance.

Others’ experiences can also lead patients to seek vaccination. The MyShot campaign from the American Lung Association shares stories of older adults’ experiences with influenza. Sharing some of these stories with patients can help reinforce the importance of influenza vaccination.

INFLUENZA SEASON 2019–20: NEW INFORMATION & IDEAS TO ASSIMILATE

Whether vaccine advocates, facilitators, or immunizers, members of the adult vaccine community have much to share with patients, colleagues, and acquaintances as the 2019–20 influenza season gets under way. From bench research to health promotions, this issue of the NAVP Immunizations Newsletter summarizes some of the key concepts generating a buzz in vaccine circles. Read on to be prepared for engagement with your community through timely discussions of influenza and how to avoid it.

BIOLOGICAL SCIENCES

As work continues on the universal influenza vaccine—the holy grail in this field—research in the biological sciences offers much information about this virus and its effects in people.

The human microbiome is an active area of research, including the potential for influenza virus to alter the flora of the upper respiratory tract and thereby facilitate secondary bacterial infections. In a study reported by Ramos-Sevillano et al., the throat microbiota was found to be “resilient to influenza infection, indicating the robustness of the upper-airway microbiome.” While the influenza-challenge study conducted in 87 healthy adult volunteers is reassuring with respect to the stability of the diverse bacterial community of the throat, its negative results leave unanswered the question of why secondary bacterial infections are so common in patients infected with influenza virus.

Antibody waning after influenza vaccination has led some to question whether to vaccinate patients early in the season. Zelner et al. recently reported results of a new angle on analysis of waning; they looked at the impact of successive vaccinations in a longitudinal study. The rate of antibody waning increased with each successive vaccination, but the antibody half-life was longer than the typical influenza season even in the most highly immunized individuals, lending support to current recommendations. Ray et al. produced contrary data, with waning of influenza vaccine effectiveness (VE) evident over the course of a season. People vaccinated 42 to 69 days previously had a 32% greater odds of testing positive for influenza, compared with those vaccinated 14 to 41 days previously. In another study that supports maintenance of protection (Martínez-Baz et al.), people who had been vaccinated in recent seasons had similar rates of protection as did those vaccinated in the current season.
In view of the above conflicting data on influenza vaccine waning and continued subpar influenza vaccination rates, the CDC continues to recommend that health professionals should not waste the opportunity to vaccinate. Influenza viruses can circulate early or late, and a provider may not see the patient again before the virus finds them. As recommended by the ACIP, influenza vaccine should be administered as soon as product is available and continuing well into the season. However, clinicians concerned about maintaining maximum protection can consider delaying influenza immunization until late November or early December for high-risk patients who are seen regularly or reliably.

While the search for the “perfect” universal vaccine goes on, evidence on currently available products continues to accumulate that cell-grown and recombinant influenza vaccines may be preferable over egg-grown strains, at least in some seasons. Levine et al. obtained serum specimens from 15 individuals infected with influenza A(H3N2) virus and 15 uninfected hospitalized adults during the 2017–18 influenza season. People who had developed high antibody titers against the egg-adapted vaccine strain had lower titers against the viral strain circulating during that season—but those with high titers against the circulating strain were associated with protection against infection.

In other health sciences research, even though pregnant women should receive both influenza and tetanus–diphtheria–acellular pertussis vaccines, only about one-third of this group gets both immunizations, according to a recent survey. Yet seasonal influenza puts pregnant women in the hospital; their risk is increased by 3.4-fold over nonpregnant women, Prasad et al. report in a study conducted in New Zealand.

Refuting prior publications, results of a large observational study show that influenza VE is not affected by current statin use among people aged 45 years or older. Havers et al. compared influenza VE among participants enrolled in the U.S. Vaccine Effectiveness Network study over the 2011–12 to 2016–17 seasons. Adjusted influenza VE was 36% for statin users and 39% for nonusers, a nonsignificant difference. This is important information since one-quarter of older adults use these medications.

The challenges of optimizing care that includes point-of-care influenza tests in ambulatory care settings are illustrated in a systematic review and meta-analysis by Lee et al. Use of antiviral agents was 2.65 times more likely with point-of-care tests, and further testing was reduced. However, prescribing of antibiotics was not affected by point-of-care testing, and use of the technology had no effects on other outcomes that could have been improved (e.g., hospital admissions, returning for care).

Is shoulder injury related to vaccine administration (SIRVA) another urban myth with no basis in fact? The American Academy of Orthopaedic Surgeons (AAOS) thinks so—and if the group is correct, that could help remove an important reason that people use to justify not getting influenza vaccine.

As described in a position statement adopted by the AAOS in June of this year, SIRVA became an accepted fact after a National Academy of Medicine committee claimed in 2011 a “causal relationship between the injection of a vaccine and deltoid bursitis” based on weak evidence (a few case reports). SIRVA is now the most common claim reimbursed by the federal Vaccine Injury Compensation Program (VICP; 671 claims in 2018), and AAOS said that nearly all these are adult claims based on influenza vaccine administered into the deltoid muscle.
However, AAOS said that its members “take the position that vaccination administered to the shoulder cannot cause or contribute to common shoulder pathologies such as rotator cuff tendinopathy, glenohumeral arthritis, and adhesive capsulitis.” These conditions develop gradually, with pain coming on as people age. Given the number of people receiving influenza vaccination, AAOS calculates that as many as 1 million Americans might “inaccurately and inappropriately believe they were injured by vaccination each year.”

Presented with this rationale during the September meeting of the National Vaccine Advisory Committee, an official from VICP said their policies would not change until peer-reviewed evidence becomes available supporting the AAOS position. Until then, the VICP representative said the position statement would be viewed only as “opinion.”

Whether the forum is live or virtual, the CDC and other organizations have many resources available to help you share #FightFlu messages. Start your search by accessing the CDC digital media toolkit. There you’ll find links to important dates and resources, print-ready materials, social media images and messages to share, and web resources.

“Make a Strong Flu Vaccine Recommendation” handouts are available for all patients, those in the 50- to 64-year-old group, and the 65+ population. A presentation on preparing a practice for the season is available, as are handouts detailing all the facts on flu vaccine.

For individuals interested in promoting adult influenza vaccinations in Canada, the International Federation on Ageing has released a consensus statement and news release based on a June 2019 expert meeting, “Uniting Diverse Groups to Improve Adult Influenza Vaccination in Canada.”

In short, there’s lots to talk about this season. Influenza virus never ceases to challenge patients and the health care system—and this year, progress is evident in what is known about this age-old battle and ways people can improve their odds of avoiding infection and sequelae.
SOURCES AND RESOURCES


