News

• The U.S. Food and Drug Administration has approved Fluzone High-Dose Quadrivalent (Sanofi Pasteur) for use in adults 65 years of age and older. With the addition of a second influenza B strain, Fluzone High-Dose Quadrivalent will help protect against both of the influenza B lineages selected for inclusion each season. Fluzone High-Dose was originally approved in 2009 as a trivalent product.

• Among Medicare beneficiaries in the United States, the relative vaccine effectiveness (RVE) of high-dose versus standard-dose influenza vaccine increased with patient age, an observational study shows. Lu et al. considered more than 19 million beneficiaries aged 65 years or older who were vaccinated in community pharmacies in a retrospective cohort analysis of the six seasons from 2012–13 to 2017–18. In those aged 85 years or older, the high-dose product was consistently more effective for preventing influenza-related hospital encounters than standard-dose vaccines across all seasons. The RVEs were significantly higher for the high-dose vaccine in four of the seasons and at least as effective in the other two seasons (J Infect Dis. 2019;220(9):1511–20).

• The Medicare national payment amount for immunization administration services will be maintained in calendar year 2020 at the 2019 rate, the Centers for Medicare & Medicaid Services (CMS) said in a Federal Register posting. The agency had proposed a crosswalking of vaccine and therapeutic injection coding that would have reduced reimbursements. As a result of concerns expressed by stakeholders, including the Adult Vaccine Access Coalition (of which The Gerontological Society of America is an active member), CMS said it recognizes the value of immunization services and did not want to reduce “public access to vaccines...in light of recent public health events.”

• December 18 is the deadline for submitting abstracts of original research for presentation at the 2020 Annual Conference on Vaccinology Research, which will be held on March 23–25, 2020, in Washington, DC. A $10,000 research grant will be awarded to the top poster presentation by an individual in the early stages of his or her career in any field of vaccinology. The conference is sponsored by the National Foundation for Infectious Diseases.
With better tools for viral diagnosis, dual infections with influenza A and other respiratory viruses are being detected more frequently. Gregianini et al. detected 18 cases of dual influenza A/influenza B coinfections and one of triple influenza virus infections; the group showed that coinfection can lead to a worse disease outcome (cardiomyopathy and death) than monoinfection (*J Infect Dis*. 2019;220(6):961–8).

Respiratory syncytial virus (RSV) is a major pathogen in older adults, but a recent study adds something to worry about in young children: an increased risk of asthma. The risk of hospitalization for asthma was doubled in those who had previous RSV-related hospitalizations at 6 to <12 months of age and 1.7-fold greater in the 12- to 24-month age group. Infants younger than 6 months did not have an increased asthma risk following RSV-related hospitalizations (*J Infect Dis*. 2019;220(4):550–6).

**National Influenza Vaccination Week (NIVW)** is being celebrated December 1–7, 2019, reminding everyone that it is not too late for individuals 6 months of age or older to get an influenza vaccine. The week includes messaging specifically for older adults. Consider sharing messages from the NIVW Digital Media Toolkit with patients and partners. The toolkit includes newsletter messages as well as social media content. Flu cases typically peak in February and March, meaning now is the perfect time to get vaccinated if you have not already.

The Advisory Committee on Immunization Practices (ACIP) dealt with a diverse agenda at its final meeting of the year, held October 23–24 in Atlanta. The adult and childhood immunization schedules for 2020 were finalized for publication, and as can happen, that led the group to revisit wording approved in prior decisions. Particularly relevant for adult immunizers were three topics: (1) a decision on which tetanus product to recommend for decennial booster doses, (2) changes in the format and wording in the adult immunization schedule, and (3) data on adverse events associated with vaccines that can be shared and explained to patients who are hesitant about receiving the vaccines they need.
BIOLOGICAL SCIENCES

With usage of the tetanus/diphtheria/acellular pertussis vaccine (Tdap) on the upswing among adults, an ACIP workgroup has been evaluating its recommendation for this product versus the tetanus/diphtheria vaccine (Td). Previously, ACIP had recommended that adolescents and adults receive one dose of Tdap during their lifetimes, except for pregnant women, for whom one dose was recommended during each pregnancy between 27 and 36 weeks’ gestation. As the incidence of pertussis has increased, some providers have begun using Tdap in areas with outbreaks and in at-risk patients. Usage has become so common that some providers elected to stock only Tdap.

To evaluate clinical options, ACIP looked at a safety study conducted in three European countries. Among 460 adults aged 40 years or older with no Td vaccine for 20 years or an unknown vaccination history, catch-up schedules were administered consisting of either three Tdap doses, one dose of Tdap/inactivated poliovirus vaccine (IPV) followed by two doses of Td, or three doses of Td control. No statistically significant differences in local or general symptoms among the groups were observed based on immunogenicity and reactogenicity.

SOCIAL RESEARCH/POLICY/PRACTICE

While Tdap offers an important advantage over Td in a nation that has struggled to contain pertussis outbreaks in recent years, its cost is a concern. ACIP is sensitive to the cost implications of its decisions, and the workgroup analyzed the cost-per-dose impact from the perspective of the government as a payer and the private sector (see table). Members largely agreed that the increased cost is minimal given the need to contain pertussis and noted that many providers have already made the switch to Tdap anyway. As a result, ACIP agreed with the workgroup’s consensus that either Td or Tdap can be used for additional doses of the catch-up immunization schedule for persons aged 7 years or older in both the general population and pregnant women.

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>CDC COST PER DOSE</th>
<th>INCREMENTAL COST (TDAP OVER TD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Td (TDVAX)</td>
<td>$13.96</td>
<td></td>
</tr>
<tr>
<td>Tdap (Boostrix)</td>
<td>$24.65</td>
<td>$10.68</td>
</tr>
<tr>
<td>Tdap (Adacel)</td>
<td>$24.49</td>
<td>$10.53</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>COMMERCIAL CLAIMS MEDIAN COST</th>
<th>INCREMENTAL COST (TDAP OVER TD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Td</td>
<td>$27.38</td>
<td></td>
</tr>
<tr>
<td>Tdap</td>
<td>$44.07</td>
<td>$22.56</td>
</tr>
</tbody>
</table>
When the adult immunization schedule is finalized for 2020, users will find several new features designed to enhance interpretability of the information and changes based on ACIP's recent shift toward shared clinical decision making for some vaccines in certain situations.

“The immunization schedules are a tapestry woven from all the individual recommendations that are voted on and a quick way for clinicians, patients, and administrators to see what individual people need and how to put all the individual pieces together,” said ACIP member Paul Hunter, MD, Associate Professor in the Department of Family Medicine and Community Health at the University of Wisconsin–Madison and a family physician from Wisconsin. “We are also trying to harmonize things between the child/adolescent and adult immunization schedules. There will be edits to all of the tables [based on] the large number votes we’ve had this year. There are also some new colors…and content changes to the notes.”

The additional colors in the schedule are blue, denoting shared clinical decision making, and gray boxes that mean no recommendation/not applicable. The blue color appears in the human papillomavirus (HPV) vaccine row for those ages 27 through 45 years, pneumococcal conjugate vaccine for adults 65 years of age or older, and meningococcal B vaccine for those ages 19 through 23 years who are not at increased risk. Another change in the schedule is combining recommendations for HPV vaccine for males and females into a single row that reflects the alignment of the age recommendations in an ACIP vote earlier this year.

Adverse events associated with vaccine administration are cited by those hesitant to stay up to date with recommended immunizations. The data do not support this concern, as reflected in reports to the Vaccine Adverse Event Reporting System (VAERS).

In 2017, the number of adverse events reported for 164.3 million doses of noninfluenza vaccines was 29,937, representing 1 in every 5,488 doses distributed, ACIP heard from Frank DeStefano, MD, MPH, of the Centers for Disease Control and Prevention (CDC) Immunization Safety Office. VAERS is a spontaneous, passive surveillance system, DeStefano noted, and its figures are supported by other structured CDC monitoring systems and studies conducted in large populations. VAERS accepts reports from anyone without judgment as to causality; it is more of an alerting system.

For influenza vaccines in the 2018–19 season, 159.1 million doses were distributed and 11,138 adverse events were reported to VAERS, for a rate of 1 report for every 14,284 doses distributed. Most of these—about 95%—were nonserious adverse events. DeStefano described ongoing CDC surveillance of the safety of influenza vaccines, including systems that generate “signals” that are followed closely during seasons to make sure no safety problems are emerging.

Vaccines are safe, and the odds of acquiring the pathogens and conditions they counter are far greater than the risks of adverse events. This message can be shared by immunizers and vaccine advocates with those who need to get immunized.
SOURCES AND RESOURCES

- Advisory Committee on Immunization Practices website
- Advisory Committee on Immunization Practices meeting materials