2023 CHILD, ADOLESCENT AND ADULT IMMUNIZATION SCHEDULES¹

ike the changing of the seasons, there is an inevitability to the release of the updated annual immunization schedules, and 2023 is no exception. Updates to the Advisory Committee on Immunization Practices (ACIP) immunization recommendations over the past year are synthesized into a mere eight to ten pages. This issue of the *CD Summary* highlights updates to both the childhood and adult recommendations.

KIDS

COVID-19

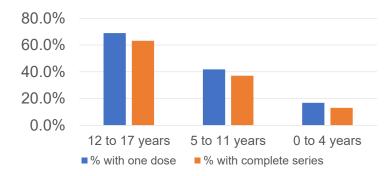
COVID-19 vaccine has been added as a routine part of the child and adolescent immunization schedules, though getting parents to accept it is another thing. In Oregon as of February 2, 2023, only 17% of children ≤4 years of age had received a dose of COVID-19 vaccine, and only 13% had completed the primary series (Figure).² This is lower than the percentage of children who received flu vaccine—historically the vaccine with the lowest pediatric uptake.³ COVID-19 vaccination coverage improves somewhat for older children and adolescents.

The new immunization schedule has added new abbreviations for COVID-19 vaccine:

- 1vCOV-mRNA monovalent mRNA COVID-19 vaccine (Moderna, Pfizer)
- 2vCOV-mRNA bivalent mRNA CO-VID-19 vaccine (Moderna, Pfizer)
- 1vCOV-aPS monovalent, adjuvanted protein subunit COVID-19 vaccine (Novavax)

The updated schedule now includes information on the Countermeasures Injury Compensation Program, which compensates individuals experiencing a serious adverse event after receipt of a medical countermeasure, including COVID-19 vaccination.

Figure. COVID-19 Vaccination in children



MMR, PCV15 and MCV4

For the first time since 1979, immunizers now have a choice of MMR vaccines. Priorix™, a new MMR vaccine produced by GlaxoSmithKline, is fully interchangeable with Merck's M-M-R II®. It's given on the same schedule at 12–15 months with a second dose administered as soon as 28 days later, but most frequently given at entry to kindergarten.

Vaxneuvance[™], a 15-valent pneumococcal conjugate vaccine produced by Merck, is fully interchangeable with PCV13. It's given on the same schedule and with the same spacing as PCV13, including the catch-up schedule.

A new formulation of Menveo® that does not require reconstitution has been approved by the FDA. But there's always a catch, and the catch is that it cannot be administered to persons <10 years of age. But then, most kids don't need a dose of MCV4 before middle school. For children with a high-risk condition needing coverage, the lyophilized formulation of Menveo (which does need to be reconstituted) or a different vaccine brand will be necessary.

ADULTS

Hepatitis B

As of 2022, CDC recommends Hepatitis B vaccine for everyone from birth

through 59 years of age. The recommendation for adults ≥60 years of age is "permissive": the vaccine can be offered to any patient who might benefit, even in the absence of known risk factors.

Hepatitis B vaccine is available in 2-, 3-, or 4- dose regimens depending on the vaccine being used and how quickly protection is needed. Heplisav-B® is an adjuvanted, 2-dose series with the doses given one month apart. Prehevbrio®, a newly licensed recombinant hepatitis B vaccine manufactured without the use of yeast, is the only formulation suitable for patients with a yeast allergy. The doses in its 3-dose series are given at times 0, 1, and 6 months. Immunogenicity studies suggest that the vaccine works well, particularly in older populations.

Polio

Since the case of paralytic polio in a Rockland County, New York resident, the Oregon Immunization Program (OIP) has received calls about unvaccinated adults and whether they should receive a polio vaccine series. Most adults were vaccinated as children and need an additional dose only for international travel to a region experiencing polio. However, adults ≥18 years of age at increased risk of exposure to poliovirus may receive a complete, 3-dose series of polio if they are. A complete series for older adults is still not routinely recommended. The ACIP is expected to revisit the topic later this year.

MMR

Priorix[™] may be used in adults who need an additional dose of MMR vaccine. During a mumps outbreak, some adults may be advised to receive a 3rd dose of MMR. For additional information, see www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm.

Pneumococcal

Adult recommendations for pneumococcal vaccination have changed significantly in the past year. Adults at increased risk for pneumococcal infection should receive a dose of pneumococcal conjugate vaccine—either PCV20 alone, or PCV15 followed by a dose of pneumococcal polysaccharide vaccine 1 year later. Either regimen is acceptable; ACIP expressed no preference. Additionally, adults aged ≥65 years who previously received PCV13 and PPSV23 may choose, in consultation with their health care provider, to receive a dose of PCV20.

VACCINE SCHEDULES APP⁴

CDC has created a <u>vaccine schedules app</u> for use on tablets and smartphones. This free resource, available for iOS and Android devices, provides the most current childhood and adult schedules as well as the catch-up schedule for children. Additionally, there are hyperlinks that open dosespecific information and links to other resources and websites.

COMING SOON

As always, routine vaccination recommendations are subject to change as new vaccines become available or new studies are published. A vaccine for respiratory syncytial virus (RSV) was recently recommended by the FDA's Vaccine and Related Biologics Advisory Committee for adults ≥60 years of age. FDA approval is

expected later this year, followed by a thorough review by the ACIP.

It's likely that we'll see PCV20 licensed for children later this year. If the ACIP follows their previous course, they may recommend using PCV20, PCV15 and PCV13 interchangeably, or it's possible that they may make a preferential recommendation for one vaccine over the others. Once the supply of PCV20 is established, it's probable that PCV13 will be withdrawn from the market.

A new RSV monoclonal antibody product is anticipated to become available sometime in 2023. This product could be administered to all newborns before hospital discharge or at an early well-child visit, depending on how close the child's birthdate is to RSV season. Behind the scenes, there is discussion about including the product in the Vaccines for Children program, but if it gets classified as a drug rather than as a vaccine, there will be logistical challenges including coverage for uninsured infants, reporting to immunization registries and tracking safety concerns.

VAERS

Vaccine safety reporting is the responsibility of all immunizing providers. The Vaccine Adverse Events Reporting System (VAERS) accepts reports on any adverse event that could potentially be related to a vaccine. Adverse events that require medical attention, regardless of seriousness, should be reported at https://vaers.hhs.gov/reportevent.html. VAERS cannot identify causality but can flag potentially related adverse outcomes for further investigation. The ability of VAERS to identify signals depends on receiving reports

from the field. If you have questions about reporting or need additional resources, please call or email the OIP Helpdesk at the number or address below.

FOR MORE INFORMATION

- Oregon's Model immunization protocols (<u>www.oregon.gov/standing-protocols</u>) are great resources. They are updated frequently and may be adapted and adopted by any physician for their practice.
- Clinicians are encouraged to tune in to OIP Office Hours, held Mondays from 12:00–1:00 P.M. Officially created for COVID-19 support, OIP staff cover many other immunization-related topics, including important announcements, guest speakers and vaccine discussions of interest to providers. Call the OIP Helpdesk at 800-980-9431 for login information.
- If you have immunization questions, contact the OIP Helpdesk at 800-980-9431 or email vfc.help@dhsoha.state.or.us.
 You'll be directed to one of our content experts to get your question answered quickly. Please let them know if you have a patient waiting: we'll find someone to help you as soon as possible.

REFERENCES

- Centers for Disease Control and Prevention. Immunization Schedule Changes and Guidance. Available at: www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html. Accessed 14 March 2023.
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