ACIP Releases 2014 Child and Adolescent Immunization Schedules

Guideline source: Centers for Disease Control and Prevention, Advisory Committee on Immunization Practices

Evidence rating system used? No

Literature search described? No

Guideline developed by participants without relevant financial ties to industry? Not reported

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There are a few changes to the 2014 immunization schedule for children and adolescents, as well as the catch-up schedule, from the Advisory Committee on Immunization Practices (ACIP) that are pertinent for family physicians. The schedules are available at http://www.aafp.org/patient-care/immunizations/schedules.html.

The format of the routine child and adolescent schedules was changed in 2013. The two previous age-based schedules (0 to six years and seven to 18 years of age) have been merged into one. The catch-up vaccination schedule has not changed and is still on a separate page. However, the footnotes for both schedules have been combined so that all the information is in one area.

Menveo (MenACWY-CRM), a polysaccharide meningococcal/oligosaccharide diphtheria conjugate vaccine, is now approved for use in infants at high-risk of acquiring meningococcal disease. These include infants with complement component deficiencies, functional or anatomic asplenia, including sickle cell disease, healthy infants who are part of an outbreak, or travelers in hyperendemic or epidemic areas. The recommended schedule is 2, 4, 6, and 12 months.

The 13-valent pneumococcal conjugate vaccine (PCV13 [Prevnar 13]) and the polysaccharide meningococcal/diphtheria toxoid conjugate vaccine (Menactra) should not be given simultaneously because PCV13 appears to interfere with Menactra antibody production. Instead, give PCV13 first and then Menactra at least four weeks later.

There appears to be an increased risk of intussusception after rotavirus vaccine (RV1 [Rotarix]) and possibly the pentavalent live vaccine (RV5 [Rotateq]). The estimated range is 0.7 to 5.4 extra cases per 100,000 children who receive the rotavirus series. However, the vaccines have markedly decreased the number of hospitalizations and deaths from rotavirus. The estimates suggest that the vaccine prevents around 100 deaths, 1,000 hospitalizations, and 10,000 emergency department visits for each additional death, hospitalization, or emergency visit it might cause from the excess intussusception. Given this risk-benefit ratio, the Centers for Disease Control and Prevention still strongly recommends using the vaccine in the United States.

The human papillomavirus (HPV) work group provided data showing a decrease in warts as well as abnormal Papanicolaou smear results for patients receiving HPV vaccine. The assumption is that over time, this will translate into fewer cervical cancers, but the studies are ongoing. HPV coverage is still poor, with only 50% of teenage girls receiving one dose and only 30% receiving all three doses. The work group pointed out that many physicians present the HPV vaccine as "optional," whereas other adolescent vaccines (e.g., tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis [Tdap]; meningitis) are recommended. If the HPV vaccine had been given at the same time that another vaccine was given, the potential coverage rate would be more than 90%. Online resources are available from the Centers for Disease Control and Prevention (www.cdc.gov/vaccines/who/teens/for-hcp/hpv-resources.html; www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.pdf).

Finally, syncope following a vaccination is a common adverse reaction in adolescents, so a 15-minute observation period is recommended postvaccination.

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