



Optimizing Immunization Programs in Obstetric–Gynecologic Practices



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS



IMMUNIZATION *for* **WOMEN**
Immunization Information for Ob-Gyns and Their Patients

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The American College of
Obstetricians and Gynecologists

WOMEN'S HEALTH CARE PHYSICIANS

Vice President, Practice Activities

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Dear Colleague:

As you know, preventive care for our patients is critical. Immunization against vaccine preventable diseases is an essential component of that care. Obstetrician–gynecologists can play a major role in improving vaccination coverage and preventing infectious diseases. As trusted health care providers of women, you are in a critical position to recommend and offer indicated vaccines to your patients. The American College of Obstetricians and Gynecologists (ACOG) encourages you to include immunizations as an integral part of your practice.

This toolkit provides information and resources for you and your practice team as you implement strategies to improve immunization processes and increase patient immunization rates. These resources can assist you in effectively integrating immunizations into your work flow and routine practice:

- Committee Opinion No. 772, *Immunization Implementation Strategies for Obstetrician–Gynecologists*
- Strategies for Effectively Integrating Immunizations Into Routine Obstetric–Gynecologic Care
- Seasonal Influenza Vaccination Programs: Tips for Optimizing Practice Management
- Developing an Immunization Referral System
- 2019 Immunization Coding for Obstetrician–Gynecologists (coding card)

The American College of Obstetricians and Gynecologists encourages you to lead by example. Educate your peers and your team about the importance of vaccinations for pregnant and nonpregnant patients. For up-to-date information on immunizations, as well as resources to optimize their integration into your practice, please visit ACOG's Immunization for Women website, www.immunizationforwomen.org.

We hope the enclosed materials are helpful to you and your practice team. If you would like additional materials or have questions, please contact us at 202-863-2489 or immunization@acog.org.

Sincerely,

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Laura E. Riley, MD
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ACOG COMMITTEE OPINION

Number 772

(Replaces Committee Opinion Number 661, April 2016)

Immunization, Infectious Disease, and Public Health Preparedness Expert Work Group

This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Immunization, Infectious Disease, and Public Health Preparedness Expert Work Group, in collaboration with members Howard Minkoff, MD and J. Martin Tucker, MD.

Immunization Implementation Strategies for Obstetrician–Gynecologists

ABSTRACT: Immunization against vaccine-preventable diseases is an essential component of women's primary and preventive health care. Many studies have shown that a recommendation from an obstetrician–gynecologist or other health care provider for a vaccine is one of the strongest influences on patient acceptance. Obstetrician–gynecologists and other health care providers should develop a standard process for assessing and documenting the vaccination status of patients and for recommending and administering vaccines. If allowed by state law, obstetrician–gynecologists and other health care providers are encouraged to institute standing orders for indicated immunizations. Obstetrician–gynecologists and other health care providers are encouraged to stock and, ideally, administer commonly recommended vaccines in their offices. Studies show that immunization rates are higher when a health care provider can offer and administer the vaccine during the same visit, as opposed to recommending vaccination and referring the patient elsewhere to receive the vaccine. Given the demonstrated efficacy and safety of vaccines and the large potential for prevention of many infectious diseases that affect adolescents, adults, pregnant women, and newborns, obstetrician–gynecologists should include immunizations as an integral part of their practice. This Committee Opinion has been revised to incorporate additional strategies for obstetrician–gynecologists to consider implementing to enhance their immunization programs.

Recommendations

The American College of Obstetricians and Gynecologists offers the following recommendations:

- Given the demonstrated efficacy and safety of vaccines and the large potential for prevention of many infectious diseases that affect adolescents, adults, pregnant women, and newborns, obstetrician–gynecologists should include immunizations as an integral part of their practice.
- Obstetrician–gynecologists and other health care providers should talk with each patient directly and strongly recommend indicated immunizations.
- Obstetrician–gynecologists and other health care providers should routinely discuss and, ideally, administer recommended vaccines, which at a minimum include influenza; tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap); and human papillomavirus (HPV).
- After educating the patient and recommending a vaccine, the obstetrician–gynecologist or other health care provider should document that the vaccine has been offered and that the patient accepted, declined, or obtained her immunization at an outside facility.
- Obstetrician–gynecologists and other health care providers should develop a standard process for assessing and documenting the vaccination status of patients and for recommending and administering vaccines.
- The obstetrician–gynecologist or other health care provider should document when a patient declines an immunization, including the discussion and her decision. The obstetrician–gynecologist or other

health care provider should inquire about her reasons for declining and reintroduce the discussion and offer the immunization at the next office visit.

- Obstetrician–gynecologists and other health care providers are encouraged to create a culture of immunization by educating and involving all staff in immunization processes. Delegate the responsibilities of maintaining and championing an immunization program to a team of staff, as appropriate for your practice structure.
- Obstetrician–gynecologists and other health care providers are encouraged to use existing systems and resources to conduct periodic assessments of immunization rates among patients to determine if and where progress is needed.

Introduction

Immunization against vaccine-preventable diseases is an essential component of women's primary and preventive health care. Despite the importance of vaccination and clear guidance from public health agencies, adult vaccination rates lag behind national goals (1). Obstetrician–gynecologists can play a major role in improving vaccination coverage and reducing morbidity and mortality from vaccine-preventable diseases, including pertussis, influenza, HPV, and hepatitis. Given the demonstrated efficacy and safety of vaccines and the large potential for prevention of many infectious diseases that affect adolescents, adults, pregnant women, and newborns, obstetrician–gynecologists should include immunizations as an integral part of their practice.

The annual health assessment should include immunization assessment and recommendations based on age and risk factors (2). This document will outline how immunization advocacy and provision can be integrated into office practice. Immunization recommendations, safety and efficacy data, as well as talking points for health care providers for specific vaccines and populations are addressed in separate ACOG Committee Opinions (3–6). This Committee Opinion has been revised to incorporate additional strategies for obstetrician–gynecologists to consider implementing to enhance their immunization programs.

Tips for Office Immunization Program Success

Many reports have addressed successful implementation strategies that are relevant to immunizations indicated for obstetric patients and gynecologic patients (7–9). The techniques discussed in the following sections have been successful in promoting immunization in office settings.

Integrate Immunizations and Practice Management Strategies

Advocate

Obstetrician–gynecologists and other health care providers should talk with each patient directly and strongly recommend indicated immunizations. Obstetrician–gynecologists and other health care providers should routinely discuss and, ideally, administer recommended vaccines, which at a minimum include influenza, Tdap, and HPV. Many studies have shown that a recommendation from an obstetrician–gynecologist or other health care provider for a vaccine is one of the strongest influences on patient acceptance (10, 11). Obstetrician–gynecologists and other health care providers should counsel their pregnant and nonpregnant patients about immunizations in an evidence-based manner that allows patients to make an informed decision (12). Obstetrician–gynecologists and other health care providers can share tailored reasons why immunizations are beneficial for a patient's family, highlight the risks of not immunizing, address patient questions and concerns, and remind patients that immunizations are the best protection against many common and serious diseases.

After educating the patient and recommending a vaccine, the obstetrician–gynecologist or other health care provider should document that the vaccine has been offered and that the patient accepted, declined, or obtained her immunization at an outside facility. The obstetrician–gynecologist or other health care provider should document when a patient declines an immunization, including the discussion and her decision. The obstetrician–gynecologist or other health care provider should inquire about her reasons for declining and reintroduce the discussion and offer the immunization at the next office visit.

Immunization Culture

Obstetrician–gynecologists and other health care providers are encouraged to create a culture of immunization by educating and involving all staff in immunization processes. Delegate the responsibilities of maintaining and championing an immunization program to a team of staff, as appropriate for your practice structure. If feasible within your practice setting, designate an immunization champion or team in the office. If you have a single champion, identify and train a backup person in case the designated champion is absent. Among other duties, the immunization champion or team orders the vaccines, receives vaccine deliveries, ensures the vaccines are stored properly, and serves as a resource for clinicians and staff in the practice. All state health departments have an immunization department with an immunization program manager who is able to help practices. Someone on your staff should know whom to contact at the local, regional, or national level for answers to clinical or logistical immunization questions (see the For More Information section to access a complete list of state immunization program managers).

Assess

A key component of a successful immunization program is the ability to routinely assess every patient's immunization status at each visit. Obstetrician–gynecologists and other health care providers should develop a standard process for assessing and documenting the vaccination status of patients and for recommending and administering vaccines. The Centers for Disease Control and Prevention and the American College of Obstetricians and Gynecologists recommend the use of prompts—paper or electronic—to remind physicians and staff which patients need to be immunized. Many electronic medical record systems have these prompts available. Electronic medical records that use reminder systems can highlight opportunities to immunize when patients are in the office for regularly scheduled appointments (9). Immunization Information Systems are also useful tools to assess and document a patient's immunization history. All states have an existing immunization registry or a registry in development. Each state has unique functionality, age requirements, and limitations (13, 14). The obstetrician–gynecologist or other health care provider should document vaccine administration in the patient's chart. To further ensure complete documentation, obstetrician–gynecologists or other health care providers are encouraged to document vaccination in their state's immunization registry when feasible (see the For More Information section for information on how to access your state's registry).

Finally, obstetrician–gynecologists and other health care providers are encouraged to use existing systems and resources to conduct periodic assessments of immunization rates among patients to determine if and where progress is needed.

Standing Orders

As mentioned previously, obstetrician–gynecologists and other health care providers should develop a standard immunization process for assessing and documenting the vaccination status of patients and recommending and administering vaccines. If allowed by state law, obstetrician–gynecologists and other health care providers are encouraged to institute standing orders for indicated immunizations. Standing orders allow administration of vaccines to appropriate patients without an individual physician order (see the For More Information section for additional resources on standing orders). However, obstetrician–gynecologists and other health care providers should familiarize themselves with local statutory requirements before standing order protocols are established. Standing orders can be an effective way to integrate immunizations into practice flow (15, 16).

Vaccine Reactions and Emergency Management

Side effects from vaccines are usually mild (eg, injection site reactions [pain, swelling, and redness],

mild fever, shivering, fatigue, headache, and muscle and joint pain) and serious adverse events are rare (eg, anaphylaxis rates are approximately 1 per million) (17). Mild side effects usually respond to simple interventions such as ice packs and antiinflammatories. Obstetrician–gynecologists and other health care providers should be able to identify the signs of immediate allergic reactions, have supplies on hand to address these events, and be prepared to call emergency medical services in the event of a severe reaction (18). For more information on the management and reporting of adverse events after vaccine administration, see the Centers for Disease Control and Prevention's General Best Practice Guidelines for Immunization (18).

Educate

Educate office staff about the recommendations, safety, and efficacy of immunizations. Office personnel may express their own uncertainty or lack of knowledge to patients. This can have a detrimental effect on a patient's willingness to receive an immunization. In contrast, educational efforts for all office staff can markedly increase patient immunization rates (19, 20).

Immunize office health care providers and staff as recommended. Maintaining expectations for the vaccination of office health care providers and staff serves to meet quality criteria for practices. Additionally, clinicians have ethical obligations to decrease vaccine-preventable diseases for health care providers and staff, provide leadership through example, develop an immunization culture in the office, and, importantly, avoid being the source of infection among their patients (12).

Legal Considerations

Federal law (National Childhood Vaccine Injury Act of 1986) mandates that all health care providers who administer vaccines must give patients or their parents or legal representatives the appropriate vaccine information statement before administration of each dose of a vaccine. Vaccine information statements are official documents and are not the same as vaccine fact sheets. The appropriate vaccine information statement can be used to educate patients about the vaccine an obstetrician–gynecologist administers or recommends (see the For More Information section for additional resources on vaccine information statements and patient education materials). Additionally, obstetrician–gynecologists and other health care providers should be aware of the National Vaccine Injury Compensation Program. The National Vaccine Injury Compensation Program is a no-fault system for resolving vaccine injury claims. If a patient believes that she or her fetus has been harmed by a vaccine covered by this program, she can file a claim with the U.S. Court of Federal Claims (21) (see the For More Information section for additional information on the National Vaccine Injury Compensation Program).

Vaccine Purchasing

Obstetrician–gynecologists and other health care providers are encouraged to stock and, ideally, administer commonly recommended vaccines in their offices. Studies show that immunization rates are higher when a health care provider can offer and administer the vaccine during the same visit, as opposed to recommending vaccination and referring the patient elsewhere to receive the vaccine (11).

Obstetrician–gynecologists and other health care providers may wish to research vaccine manufacturers for available special pricing offers to ensure the practice is securing the best price per vaccine. The purchase price of a given vaccine may vary by the vendor, and certain discounts may be available based on when and how the practice orders and pays (eg, discounts for advanced ordering and large quantities). Obstetrician–gynecologists and other health care providers also can explore group purchasing organizations or develop partnerships with nearby clinics and pharmacies to collectively make larger orders that result in discounted purchase rates (see the For More Information section for additional resources on vaccine purchasing). These responsibilities can be delegated to the immunization champion or team in the practice. Health care providers should consult their legal counsel regarding discounts and group purchasing organizations because certain restrictions may apply.

Coding and Reimbursement

Many obstetrician–gynecologists perceive a lack of reimbursement as a major barrier to including immunization services in their practices (22). However, with proper documentation and coding, these services can be reported to third-party payers and reimbursement can be received.

The practice should adhere to basic coding principles when billing for immunization services. In general, the appropriate vaccine product code should always be reported along with the appropriate *Current Procedural Terminology* (CPT) vaccine administration code. These codes should be linked to the appropriate *International Classification of Diseases*, 10th Revision, Clinical Modification code to support the medical necessity for the service(s). The inherent components of a vaccine administration code include making an appointment for the patient, pulling the chart or accessing the electronic record, and billing the service. Clinical services such as greeting the patient, taking vital signs, reviewing the immunization history and allergies, and charting the immunization administration also are considered inherent components of this service.

The CPT guidelines state that vaccination services should be reported separately from a standard preventive medicine service or wellness visit. In addition, immunization services are not part of the global obstetric package and should be reported separately as well. If a significant, separately identifiable, problem-oriented evaluation and

management service is performed, the appropriate CPT Evaluation and Management code should be reported in addition to the immunization codes.

It is important for a practice to track reimbursement for immunization services. Explanation of benefits should be examined at periodic intervals to ensure that reimbursement covers the costs of the vaccine product. With diligent oversight, immunization services will be sustainable for most practices.

The American College of Obstetricians and Gynecologists provides several resources to help physicians and their staff with coding, purchasing, and reimbursement issues related to immunization services. See the For More Information section for additional resources about the implementation of an immunization program in your office, including vaccine purchasing, storage and handling, and safety.

Conclusion

Obstetrician–gynecologists have a unique opportunity to reduce the frequency of vaccine-preventable diseases. To accomplish that goal, obstetrician–gynecologists must be aware of current vaccine recommendations, educate patients about vaccination, encourage patients to be vaccinated, and institute systems in the office to integrate vaccination into the routine running of their practice.

For More Information

The American College of Obstetricians and Gynecologists has identified additional resources on topics related to this document that may be helpful for ob-gyns, other health care providers, and patients. You may view these resources at www.acog.org/More-Info/ImmunizationsinPractice.

These resources are for information only and are not meant to be comprehensive. Referral to these resources does not imply the American College of Obstetricians and Gynecologists' endorsement of the organization, the organization's website, or the content of the resource. The resources may change without notice.

References

1. Williams WW, Lu PJ, O'Halloran A, Kim DK, Grohskopf LA, Pilishvili T, et al. Surveillance of vaccination coverage among adult populations—United States, 2015. *MMWR Surveill Summ* 2017;66(SS-11):1–28.
2. Well-woman visit. ACOG Committee Opinion No. 755. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2018;132:e181–6.
3. Human papillomavirus vaccination. Committee Opinion No. 704. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2017;129:e173–8.
4. Influenza vaccination during pregnancy. ACOG Committee Opinion No. 732. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2018;131:e109–14.
5. Update on immunization and pregnancy: tetanus, diphtheria, and pertussis vaccination. Committee Opinion No. 718.

- American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2017;130:e153–7.
6. Maternal immunization. ACOG Committee Opinion No. 741. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2018;131:e214–7.
 7. Recommendations regarding interventions to improve vaccination coverage in children, adolescents, and adults. Task Force on Community Preventive Services. *Am J Prev Med* 2000;18:92–6.
 8. Recommendations from the National Vaccine Advisory committee: standards for adult immunization practice. National Vaccine Advisory Committee. *Public Health Rep* 2014;129:115–23.
 9. The Community Guide. Vaccination programs: provider reminders. Atlanta (GA): Centers for Disease Control and Prevention; 2015. Available at: <https://www.thecommunityguide.org/findings/vaccination-programs-provider-reminders>. Retrieved October 2, 2018.
 10. Influenza vaccination coverage among pregnant women: 2011–12 influenza season, United States. Centers for Disease Control and Prevention (CDC). *MMWR Morb Mortal Wkly Rep* 2012;61:758–63.
 11. Ding H, Black CL, Ball S, Fink RV, Williams WW, Fiebelkorn AP, et al. Influenza vaccination coverage among pregnant women—United States, 2016–17 influenza season. *MMWR Morb Mortal Wkly Rep* 2017;66:1016–22.
 12. Ethical issues with vaccination for the obstetrician–gynecologist. Committee Opinion No. 564. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2013;121:1144–50.
 13. Centers for Disease Control and Prevention. About immunization information systems. Atlanta (GA): CDC; 2012. Available at: <https://www.cdc.gov/vaccines/programs/iis/about.html>. Retrieved October 2, 2018.
 14. Recommendation for use of immunization information systems to increase vaccination rates. *J Public Health Manag Pract* 2015;21:249–52.
 15. McKibben LJ, Stange PV, Sneller VP, Strikas RA, Rodewald LE. Use of standing orders programs to increase adult vaccination rates. Advisory Committee on Immunization Practices. *MMWR Recomm Rep* 2000;49:15–6.
 16. Barnard JG, Dempsey AF, Brewer SE, Pyrzanowski J, Mazzone SE, O’Leary ST. Facilitators and barriers to the use of standing orders for vaccination in obstetrics and gynecology settings. *Am J Obstet Gynecol* 2017;216:69.e1–7.
 17. McNeil MM, Weintraub ES, Duffy J, Sukumaran L, Jacobsen SJ, Klein NP, et al. Risk of anaphylaxis after vaccination in children and adults. *J Allergy Clin Immunol* 2016;137:868–78.
 18. Kroger AT, Duchin J, Vázquez M. General best practice guidelines for immunization. Best practices guidance of the Advisory Committee on Immunization Practices (ACIP). Atlanta (GA): Centers for Disease Control and Prevention. Available at: <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html>. Retrieved October 17, 2018.
 19. Hoppe KK, Eckert LO. Achieving high coverage of H1N1 influenza vaccine in an ethnically diverse obstetric population: success of a multifaceted approach. *Infect Dis Obstet Gynecol* 2011;2011:746214.
 20. Broughton DE, Beigi RH, Switzer GE, Raker CA, Anderson BL. Obstetric health care workers’ attitudes and beliefs regarding influenza vaccination in pregnancy. *Obstet Gynecol* 2009;114:981–7.
 21. Health Resources and Services Administration. What you need to know about the National Vaccine Injury Compensation Program (VICP). Rockville (MD): HRSA; 2016. Available at: <https://www.hrsa.gov/sites/default/files/vaccinecompensation/resources/84521booklet.pdf>. Retrieved October 2, 2018.
 22. Leddy MA, Anderson BL, Power ML, Gall S, Gonik B, Schulkin J. Changes in and current status of obstetrician–gynecologists’ knowledge, attitudes, and practice regarding immunization. *Obstet Gynecol Surv* 2009; 64:823–9.

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Immunization implementation strategies for obstetrician–gynecologists. ACOG Committee Opinion No. 772. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2019;133:e254–59.

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Strategies for Effectively Integrating Immunizations Into Routine Obstetric–Gynecologic Care

Overview

The strategies outlined in this resource are based on findings from an American College of Obstetricians and Gynecologists adult immunization project funded by the Centers for Disease Control and Prevention. During this project, recommendations from the National Vaccine Advisory Committee Standards for Adult Immunization Practice were implemented among a diverse population of obstetric–gynecologic providers. Through this process, four overarching strategies were shown to improve immunization processes and ultimately increase immunization rates among obstetrician–gynecologists (ob-gyns) that put them into practice.

Immunizing pregnant and nonpregnant women against vaccine-preventable diseases is an essential component of women's health care. These suggested strategies are intended to help ob-gyns optimize their immunization programs and integrate immunizations into their routine patient care.

1. Administer routinely discussed and recommended vaccines, which at a minimum include influenza; tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap); and human papillomavirus (HPV).

Activities and considerations to successfully implement this strategy include the following:

- ▶ Train staff on how to deliver strong immunization recommendations to every patient, with statements that include, at a minimum, the recommendation, a time frame for getting the vaccine, and a benefit to the patient.
- ▶ For practices that currently offer immunizations only to obstetric patients, pilot-test expanding a routine immunization, such as influenza, to gynecologic patients.
- ▶ Similarly, when adding immunizations to a practice or unit that previously did not administer onsite, start with one vaccine and pilot-test the process for a specified time frame.
- ▶ You may wish to research vaccine manufacturers for special pricing offers to ensure your practice obtains the best price per vaccine. Consult your legal counsel regarding discounts, as certain restrictions may apply.

2. Create a culture of immunization by educating and involving all staff in immunization processes. Delegate the responsibilities of maintaining and championing an immunization program to a team of staff, as appropriate for your practice structure.

Activities and considerations to successfully implement this strategy include the following:

- ▶ Regularly offer education to clinicians and staff on the importance of immunizations through routine meetings; circulation of educational materials; and access to opportunities, such as webinars and conferences.
- ▶ Develop scripts for staff to follow when promoting immunizations to patients to ensure strong and consistent recommendations.
- ▶ Encourage front desk staff to promote immunizations to patients as appropriate, such as letting each patient know at check in that she is due for a vaccine.
- ▶ Display patient education materials on immunizations throughout the practice in locations where clinical staff and patients can easily access, such as intake areas and examination rooms.
- ▶ Based on your practice structure, delegate immunization program management duties (eg, ordering and stocking of new vaccine, monitoring vaccine storage) to an Immunization Champion team or individual. An Immunization Champion team should include at least one medical assistant and/or nurse, one physician, and the manager of the practice or clinic.
- ▶ Recognize your Immunization Champions with a name badge, shirt pin, or desk placard that acknowledges their special role and the importance of their work.

3. Develop a standard process for assessing, recommending, administering, and documenting vaccination status of patients.

Activities and considerations to successfully implement this strategy include the following:

- ▶ If allowed by state law and conducive to your practice structure, institute immunization standing orders for vaccines administered onsite.
- ▶ In practices unable to implement standing orders, instead develop a standard immunization process that takes into account your unique staffing structure and current work flow while shifting immunization responsibilities away from the health care provider. Examples include the following:
 - Have a health care provider review patient charts the day before the patient visit and assess for indicated immunizations. This will allow a nurse or medical assistant to offer and administer vaccines early in the visit.
 - Develop a written step-by-step process for clinical staff to follow with pregnant patients that outlines expected messaging and routine procedures for each week of gestation, including immunizations.
- ▶ Before implementation of any changes, gather input from staff on opportunities (and barriers) to improve existing immunization processes.
- ▶ Link Tdap vaccination to screening for gestational diabetes or to Rho(D) immune globulin administration to create a natural prompt for Tdap administration.
- ▶ Build language into intake forms, as well as check-in and check-out paperwork, to remind clinical staff and patients to ask about immunizations.
- ▶ Make use of electronic prompts within the electronic health record (EHR) to remind health care providers and staff about due immunizations. And if your EHR has the capability, use smart phrases or dot phrases, for example, to make documentation flow more quickly.
- ▶ Work with colleagues and staff to implement steps for consistent immunization documentation in the EHR. When feasible, also enroll in your state's immunization information system to electronically report your immunization administration data.

4. Use existing systems and resources to conduct periodic assessments of immunization rates among patients to determine if and where progress is needed.

Activities and considerations to successfully implement this strategy include the following:

- ▶ Conduct periodic assessments of immunization rates that are best suited to your practice structure, staffing, and capabilities. Examples include the following:
 - Chart review (randomized if feasible) that compares vaccine administration to eligibility over a selected time frame
 - Review of processed immunization billing codes for a certain time frame compared with the number of patients seen during that time
 - Review of vaccine purchasing amounts and doses administered compared with the number of patients eligible for a certain vaccine over a selected time frame
- ▶ When assessing immunization rates, consider looking initially at just one population group or immunization, such as pregnant patients or influenza administration, during a specific and limited time frame.
- ▶ Develop a plan for how you will use the findings of your immunization rates assessment. For example, presenting data to health care providers and staff in the practice can illuminate the need for process improvements and motivate staff to set goals and implement changes.

For more information, including ACOG immunization clinical guidance; practice management, coding, and other immunization resources; and the full project report with further details and examples on implementing the strategies outlined in this document, please visit www.acog.org/More-Info/ImmunizationsinPractice.

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Seasonal Influenza Vaccination Programs

Tips for Optimizing Practice Management

An obstetrician–gynecologist (ob-gyn) plays a crucial role in providing important information on influenza (flu) immunization for women and adolescent girls and in a pregnant woman's decision to get the seasonal flu vaccine, protecting her health and the health of her fetus. Offering the seasonal flu vaccine in the practice setting is the best way to ensure patients receive their immunization.

This guide provides tips to help optimize the flu immunization program in your obstetric–gynecologic practice. Please share this resource with the immunization coordinator, nurse, medical assistant, office manager, or other staff responsible for immunization management in your practice.

Ordering Vaccine

New flu vaccine inventory must be ordered every year because vaccine composition is reviewed annually and updated to match circulating flu viruses. There are steps practices can take when ordering to better manage the costs of vaccine purchasing.

Purchasing Options

Routes to take when purchasing a vaccine include the following:

- ▶ Direct from manufacturers (search online for the company name and “influenza vaccine ordering”)
- ▶ From a distributor, particularly the distributor from whom you buy your other medical supplies
- ▶ Through purchasing cooperatives or group purchasing organizations
- ▶ Through your parent institution such as your university or your health plan
- ▶ Through special programs conducted by your state or local health department

Getting the Best Rate

One method for securing a discounted rate is to explore group purchasing organizations or develop partnerships with nearby clinics to collectively make a larger order.

ADDITIONALLY, taking the time to research and compare prices can ensure you secure the best price per vaccine. For example, certain manufacturers or vendors accept returns of unused vaccine doses and will refund a percentage of the cost for returned doses. Other vendors may not accept returns at all. Factor in this information when determining the quantity to order and assessing financial implications.

You may wish to research vaccine manufacturers for special pricing offers to ensure your practice obtains the best price per vaccine. These might include the following:

- ▶ **Prebook discounts** allow you to purchase a vaccine at a lower price if you reserve doses well in advance of the upcoming flu season.
- ▶ **Prompt pay discounts** reflect a discount that vaccine manufacturers provide in exchange for a more rapid payment on account payables. The terms to receive the discount usually are favorable (eg, 60–90 days).
- ▶ **Website order discounts** provide discounts from the manufacturers for ordering their vaccines directly from their website. This allows them to promote their products to you and to track client activity more easily.
- ▶ **Promotions or sales** occur when vaccine manufacturers attempt to push inventory and influence ordering patterns by running promotions or sales. Pay attention to annual sales dates and structure ordering around the lower-price opportunities.
- ▶ **Credit cards** create opportunities in two ways. First, they extend payment terms (typically by an additional 30 days). Secondly, many credit cards offer payback in cash or other benefits (eg, airline miles). Note that you may risk excessive interest penalties if you violate the payment terms on your credit card.

Consult your legal counsel regarding discounts, as certain restrictions may apply.

Prebooking

- ▶ Flu vaccine prebooking (ordering doses for the *upcoming* flu season) usually begins in February, during the current flu season.
- ▶ In many cases, prebooking the flu vaccine offers a lower-price option. The closer the flu season is, the more prices generally increase.
- ▶ When prebooking, there are key factors to consider for determining the number of vaccine doses needed for the next season. These include the following:
 - The approximate number of new patients your practice gains each year (for example, if your practice sees a 3% annual increase in patients, plan to increase your prebooking order accordingly)
 - Your available storage (your practice must have enough storage space available for the vaccines)
- ▶ Strongly consider prebooking with more than one manufacturer or vendor to avoid issues if one company experiences a shortage.

Storage and Handling Requirements

Proper storage and handling of vaccines protects patients, safeguards the vaccine supply, and prevents avoidable costs associated with revaccination and replacement of vaccines.

Key requirements for proper storage and handling include the following:

- ▶ Your practice must have a designated, medical-grade refrigerator to store vaccines. Never store food or other items in your vaccine refrigerator.
 - Use a stand-alone refrigerator rather than a refrigerator-freezer combination or other units not designed for storing vaccines.
 - Never, under any circumstances, store any vaccine in a dormitory or bar-style combined refrigerator and freezer unit.

- ▶ Review and document vaccine temperature a *minimum of two times* during each clinic workday to ensure correct temperatures are maintained (ie, between 2°C and 8°C or between 36°F and 46°F for all refrigerated vaccines).
- ▶ Use of a continuous monitoring and recording digital data logger is recommended. This data logger should have a current and valid Certificate of Calibration Testing, set at a minimum recording interval of every 30 minutes.
- ▶ Review vaccine expiration dates and rotate vaccine stock weekly.

More information on proper storage and handling can be found through the American Academy of Pediatrics and in the Centers for Disease Control and Prevention's Vaccine Storage and Handling Toolkit.

Reimbursement

Proper reimbursement is critical for a successful immunization program. By law, many vaccines are covered by health insurance plans at no cost sharing for patients.

Resources from the American College of Obstetricians and Gynecologists, the Immunization Action Coalition, and the National Adult and Influenza Immunization Summit are available to help ensure appropriate billing and coding for vaccines, which should lead to optimum reimbursement levels.

For additional resources on vaccine administration, storage and handling, patient education, supply, pricing, group purchasing options, reimbursement and coding, and more, visit <https://www.acog.org/More-Info/ImmunizationsinPractice>.

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www.acog.org



Developing an Immunization Referral System

The American College of Obstetricians and Gynecologists (ACOG) recommends that obstetrician–gynecologists (ob–gyns) assess patients' immunization status and recommend and offer needed vaccines during routine office visits. There are many resources available to help ob–gyns maintain a vaccine inventory in their practices while also maximizing reimbursement and reducing costs. For those practices that are unable to stock and administer vaccinations onsite, ACOG recommends that ob–gyns develop a system for referring patients elsewhere for vaccination.

An immunization referral system should include the following:

- A referral or prescription for a specific vaccine needed within a specific time line
- Identified locations where the vaccine is offered, and preferably those that accept the patient's insurance
- A plan for following up and documenting that the patient received the vaccine

To help ob–gyns develop such a system, ACOG has outlined several tips and strategies. Please keep in mind that there is no one-size-fits-all immunization referral system. These tips and strategies are meant to offer useful suggestions as you build the immunization referral system that works best for your practice.

Tips and Strategies for Developing an Immunization Referral System

Determine which vaccines your patient population may need that your practice is not able to stock.

- ▶ In an ob–gyn office, necessary vaccines at a minimum include influenza; tetanus toxoid, diphtheria toxoid, and acellular pertussis (Tdap); and human papillomavirus (HPV).
- ▶ Depending on your patient population, your practice also may need to give referrals for the following vaccines: pneumococcal, hepatitis B, herpes zoster, measles–mumps–rubella (MMR), meningococcal, and more.
- ▶ Use a screening tool to stay informed on specific ages and indications for different vaccines.
 - The Centers for Disease Control and Prevention (CDC) and the Immunization Action Coalition (IAC) offer such screening tools.
 - The American College of Obstetricians and Gynecologists offers resources for determining patients' recommended immunizations at acog.org and through the ACOG Immunization applet.

Identify locations that offer the vaccines your practice does not stock or that currently may not be in stock.

- ▶ This location can be a partner or neighboring primary care office or clinic, health department, clinic or hospital pharmacy, independent or retail pharmacy, travel clinic, or other community health care provider.

Develop a list of referral locations and keep copies of this list readily available to share with patients.

- ▶ The list should include the referral's name, address, phone number, business hours, website link and, when possible, vaccines offered and insurance coverage information.
 - *Please note: Although a referral location may bill the same insurance plan as the ob–gyn, the coverage rate, or whether or not the vaccine is covered, or both, may vary.*
- ▶ Providing such a list is especially critical for patients who do not already have a primary care provider, preferred pharmacy, or other identified source for acquiring a referred vaccine.

Write down the exact vaccine and timing of administration needed when you refer the patient for her vaccine.

- ▶ To formalize the process and convey necessity to the patient, consider writing the referral information on a prescription pad.

If possible, use your electronic medical record (EMR) e-prescription feature.

- ▶ Some EMRs allow you to e-prescribe a specific vaccine to a specific pharmacy for your patient.
- ▶ Using e-prescription
 - allows the patient to go to her preferred location.
 - provides documentation and information to the patient.
 - gives the pharmacy a heads-up that the patient is coming.
- ▶ Depending on the functionality of your EMR, using the e-prescription feature also may generate a confirmation when the vaccine has been given and, therefore, provides documentation of vaccination in your records.

Enroll in your state immunization information system (IIS), also known as an immunization registry.

- ▶ Each state IIS can help health care providers assess, document, and track patients' immunization status. The value of the IIS is optimized when all immunization providers report vaccinations to them.
- ▶ In many states, pharmacies are required to report all vaccines administered to the registry.
- ▶ Most EMRs have the capability to send immunization data electronically from your patient records directly to the registry. Additionally, some state immunization systems allow for a two-way flow of information, or "bidirectionality." In these states, data contained within the registry also can be populated in your EMR, which offers you a more complete patient record.
- ▶ Participating in the registry can help you follow up and document when a vaccine has been given and alert you to the need for a patient reminder.
- ▶ You can learn more about your state's registry and how to enroll at your state's IIS website.

Develop a reminder and recall system to follow up with patients after referring them to pharmacies or other health care providers to ensure the patients have received the recommended vaccines.

- ▶ Advise your patients that it is important to report back to your practice (eg, by phone, fax, or patient portal) once they have received their recommended vaccines or completed a vaccination series so that it can be documented in their medical records.
- ▶ For patients who do not report back, follow-up should be carried out. For time-sensitive immunizations, such as the maternal Tdap vaccine and the influenza vaccine, follow-up should take place within 30 days of the referral.
- ▶ For patients who confirm they received the recommended vaccines, ask them to provide, when possible, official documentation that can be entered into their health care record.
- ▶ If a patient indicates that she has not received the vaccine, remind her of the importance of getting the vaccine, where she can receive it, and how to follow up with your practice.

- ▶ Remember, documentation in the patient chart of vaccine recommendation, administration, refusal, referral, and/or off-site receipt is essential to your patient's health, the on-going care you provide, and your ability to measure the effectiveness of your immunization program.

Immunization Resources

The American College of Obstetricians and Gynecologists' immunization resources and clinical guidance:
<https://www.acog.org/More-Info/ImmunizationsinPractice>

The American College of Obstetricians and Gynecologists' app and Immunization applet: <https://www.acog.org/About-ACOG/News-Room/ACOG-App>

Centers for Disease Control and Prevention immunization information and resources for health care providers:
<https://www.cdc.gov/vaccines/hcp/>

Immunization Action Coalition, including practice management and patient education resources:
<http://www.immunize.org/>

Background

The American College of Obstetricians and Gynecologists (ACOG), in collaboration with the National Association of Chain Drug Stores (NACDS) and the American Pharmacists Association (APhA), developed this tip sheet for ob-gyns on how to implement an immunization referral system for health care entities, including pharmacies. Obstetrician-gynecologists and community pharmacy members were actively engaged in the development of this tip sheet to provide the most pertinent information to enhance health care entity collaboration and increase national immunization rates. Immunization referral is an important first step toward future pharmacy-physician practice collaborations.

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The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Immunization Coding for Obstetrician–Gynecologists

Vaccines Commonly Administered to Adolescents and Adults (Report an Administration Code and a Vaccine Code)*

Vaccine	Code for Vaccine Product	Administration Codes	
		CPT	Medicare
Hepatitis A vaccine (HepA), adult dosage, for intramuscular use	90632	90471–90472	90471–90472
Hepatitis A vaccine (HepA), pediatric/adolescent dosage, two-dose schedule, for intramuscular use	90633	90460–90472	90471–90472
Hepatitis A vaccine (HepA), pediatric/adolescent dosage, three-dose schedule, for intramuscular use	90634	90460–90472	90471–90472
Hepatitis B vaccine (HepB), adolescent, two-dose schedule, for intramuscular use	90743	90460–90472	G0010
Hepatitis B vaccine (HepB), pediatric/adolescent dosage, three-dose schedule, for intramuscular use	90744	90460–90472	G0010
Hepatitis B vaccine (HepB), adult dosage, three-dose schedule, for intramuscular use	90746	90471–90472	G0010
Hepatitis B vaccine (HepB), adult dosage, two-dose schedule, for intramuscular use	90739	90471–90472	G0010
Hepatitis B vaccine (HepB), dialysis or immunosuppressed patient dosage, three-dose schedule, for intramuscular use	90740	90471–90472	G0010
Hepatitis B vaccine (HepB), dialysis or immunosuppressed patient dosage, four-dose schedule, for intramuscular use	90747	90471–90472	G0010
Hepatitis A and hepatitis B vaccine (HepA–HepB), adult dosage, for intramuscular use	90636	90471–90472	90471–90472
Human papillomavirus vaccine types 6, 11, 16, 18 (quadrivalent); three-dose schedule, for intramuscular use	90649	90460–90472	90471–90472
Human papillomavirus vaccine types 16, 18 (bivalent); three-dose schedule, for intramuscular use	90650	90460–90472	90471–90472
Human papillomavirus vaccine types 6, 11, 16, 18, 31, 33, 45, 52, 58, nonavalent (9vHPV), two-dose or three-dose schedule, for intramuscular use	90651	90460–90472	90471–90472
Meningococcal polysaccharide vaccine, serogroups A, C, Y, W-135, quadrivalent (MPSV4), for subcutaneous use	90733	90460–90472	90471–90472
Meningococcal conjugate vaccine, serogroups A, C, Y and W-135, quadrivalent (MCV4 or MenACWY), for intramuscular use	90734	90460–90472	90471–90472
Pneumococcal conjugate vaccine, 13-valent (PCV13), for intramuscular use	90670	90460–90472	G0009
Pneumococcal polysaccharide vaccine, 23-valent (PPSV23), adult or immunosuppressed patient dosage, when administered to individuals 2 years or older, for subcutaneous or intramuscular use	90732	90460–90472	90471–90472
Tetanus and diphtheria toxoids adsorbed (Td), preservative free, when administered to individuals 7 years or older, for intramuscular use	90714	90460–90472	90471–90472
Tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap), when administered to individuals 7 years or older, for intramuscular use	90715	90460–90472	90471–90472
Varicella virus vaccine (VAR), live, for subcutaneous use	90716	90460–90472	90460–90472
Varicella-zoster immune globulin, human, for intramuscular use	90396	90460–90472	96372
Zoster (shingles) vaccine (HZV), live, for subcutaneous injection	90736	90471–90472	90471–90472
Zoster (shingles) vaccine (HZV), recombinant, subunit, adjuvanted, for intramuscular use	90750	90471–90472	90471–90472

*Note: Influenza codes are outlined in the “Coding for Influenza Vaccines” table (see the reverse page).

Abbreviation: CPT, Current Procedural Terminology.

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WOMEN'S HEALTH CARE PHYSICIANS

Immunization Coding for Obstetrician–Gynecologists

Coding for Influenza Vaccines

Vaccine (Description)	Code for Vaccine Product	Administration Code
Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, for intradermal use	90630	90460–90472
Influenza vaccine, inactivated (IIV), subunit, adjuvanted, for intramuscular use	90653	90460–90472
Influenza virus vaccine, trivalent (IIV3), split virus, preservative-free, for intradermal use	90654	90460–90472
Influenza virus vaccine, trivalent (IIV3), split virus, preservative free, 0.25 mL dosage, for intramuscular use	90655	90460–90472
Influenza virus vaccine, trivalent (IIV3), split virus, preservative free, 0.5 mL dosage, for intramuscular use	90656	90460–90472
Influenza virus vaccine, trivalent (IIV3), split virus, 0.25 mL dosage, for intramuscular use	90657	90460–90472
Influenza virus vaccine, trivalent (IIV3), split virus, 0.5 mL dosage, for intramuscular use	90658	90460–90472
Influenza virus vaccine, trivalent (ccIIV3), derived from cell cultures, subunit, preservative and antibiotic free, 0.5 mL dosage, for intramuscular use	90661	90460–90472
Influenza virus vaccine (IIV), split virus, preservative free, enhanced immunogenicity via increased antigen content, for intramuscular use	90662	90460–90472
Influenza virus vaccine, quadrivalent, live (LAIV4), for intranasal use	90672	90473–90474
Influenza virus vaccine, trivalent (RIV3), derived from recombinant DNA, hemagglutinin (HA) protein only, preservative and antibiotic free, for intramuscular use	90673	90460–90472
Influenza virus vaccine, quadrivalent (ccIIV4), derived from cell cultures, subunit, preservative and antibiotic free, 0.5 mL dosage, for intramuscular use	90674	90460–90472
Influenza virus vaccine, quadrivalent (RIV4), derived from recombinant DNA, hemagglutinin (HA) protein only, preservative and antibiotic free, for intramuscular use	90682	90460–90472
Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, 0.25 mL, for intramuscular use	90685	90460–90472
Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, 0.5 mL dosage, for intramuscular use	90686	90460–90472
Influenza virus vaccine, quadrivalent (IIV4), split virus, 0.25 mL dosage, for intramuscular use	90687	90460–90472
Influenza virus vaccine, quadrivalent (IIV4), inactivated, adjuvanted, preservative free, 0.25 mL dosage, for intramuscular use	90689	90460–90472
Influenza virus vaccine, quadrivalent (ccIIV4), derived from cell cultures, subunit, antibiotic free, 0.5mL dosage, for intramuscular use	90756	90460–90472

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