ASSOCIATION OF PHYSICIAN ASSOCIATES IN OBSTETRICS & GYNECOLOGY

Immunization in Pregnancy

(Adopted 2023)

Executive Summary of Policy Contained in this Paper

- APAOG supports the administration of immunizations during pregnancy
- APAOG recommends all pregnant individuals get immunized for influenza and pertussis during each pregnancy
- PAs should assess patients and decide the appropriate time to administer vaccines
- APAOG supports the use of additional vaccines in pregnancy if indicated for specific populations at risk
- APAOG recognizes that immunization in pregnancy can significantly reduce maternal and infant adverse effects

Immunization is a vital part of maternal obstetric care. Maternal infections can significantly increase the risk of maternal morbidity and mortality. The current recommendation is for all pregnant individuals to get the inactivated influenza vaccine and tetanus toxoid, reduced diphtheria, and acellular pertussis (Tdap) vaccine during each pregnancy (1). Additional vaccinations may be indicated based on specific medical conditions. Overall PAs working in obstetrics should provide patients with vaccine recommendations and incorporate immunization into the routine standard of care. Studies reveal that when Ob/Gyn providers offer vaccines to patients, there is a significant increase in vaccine acceptance (2).

In pregnancy, there are physiologic changes to the immunologic and cardiopulmonary bodily systems. Due to this, pregnant individuals are at increased risk of having severe illness from influenza (3, 4). In addition, neonates within six months of life are also at increased risk of severe influenza-related disease (4). Therefore, the influenza vaccine is recommended to all pregnant individuals during influenza season in any trimester of pregnancy. The influenza vaccine protects neonates, as infants cannot be vaccinated until six months. Studies have shown that influenza vaccination in pregnancy can substantially decrease maternal and neonatal illness and hospitalizations (5).

Infants under three months old have an increased risk of severe morbidity and mortality from pertussis, and infants cannot receive vaccination for pertussis until two months old. The current recommendation is for

maternal Tdap vaccination in pregnancy for fetal and neonatal benefits due to antibodies crossing through the placenta. Vaccination is recommended starting at 27 weeks gestation to maximize the antibody response and transfer (6). This vaccine should be performed in each pregnancy regardless of previous Tdap immunization history. Sometimes, the Tdap vaccine can be administered outside the recommended 27–36-week window. For example, if there is a pertussis outbreak, the vaccine can be administered early, or if the pregnant individual was not vaccinated during pregnancy, it is recommended immediately postpartum (6).

Additional vaccinations may be recommended in certain situations or populations, for instance, patient age, comorbidities, and risk factors. Those vaccines include meningococcal, hepatitis A, B, and vaccines for travel and immunization will provide maternal protection from these specific pathogens and diseases (3, 7). PAs working in obstetrics should be aware of such indications and risk factors and offer pregnant patients immunization when appropriate. Immunization is the standard of care to reduce severe illness and subsequent disease in pregnant patients, fetuses, and neonates (4).

References:

1. Omer SB. Maternal immunization. N Engl J Med 2017; 376: 1256– 67.
2. CDC, "12 COVID-19 Vaccination Strategies for Your Community."
3. CDC. Vaccines During and After Pregnancy: National Center for Immunization and Respiratory Diseases. https://www.cdc.gov/vaccines/pregnancy/vacc-during-after.html. Accessed March 20th, 2023
4. Swamy GK, Heine RP. Vaccinations for pregnant women. Obstet Gynecol 2015; 125: 212– 26.
5. CDC. Prevention and control of influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), United States, 2013–14. MMWR 2013; 62(No. RR-07).
6. 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.
7. Maternal immunization. ACOG Committee Opinion No. 741. American College of Obstetricians and Gynecologists. Obstet Gynecol 2018;131:e214–7.