Current Issues in Immunization NetConference
Vaccines during Pregnancy: A Strong Record of Safety

Hosted by:

Immunization Services Division
National Center for Immunization and Respiratory Diseases
Centers for Disease Control and Prevention
Atlanta, GA

National Vaccine Program Office
Office of the Assistant Secretary for Health
U.S. Department of Health and Human Services
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Technology Requirements

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Do You Have a Question?

Please enter your question into the QA pod
Learning Objectives

1. Describe an emerging immunization issue

2. List a recent immunization recommendation made by the Advisory Committee on Immunization Practices

3. Locate resources relevant to current immunization practice

4. Implement disease detection and prevention health care services (e.g., smoking cessation, weight reduction, diabetes screening, blood pressure screening, immunization services) to prevent health problems and maintain health
Today’s Agenda

Introduction and Overview of Vaccines Recommended for Pregnant Women
Andrew Kroger, MD, MPH, Medical Officer, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention

Vaccine Safety Surveillance
Frank DeStefano, MD, MPH, FACPM, Director, Immunization Safety Office, Division of Healthcare Quality and Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention

Summary of Safety Profile of Maternal Immunizations
Naomi K. Tepper, MD, MPH, FACOG, Medical Officer, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention and Adjunct Associate Professor of Obstetrics and Gynecology, Emory University

Provider Perspective: The Impact of Maternal Immunizations
Geeta Swamy, MD, Associate Professor of Obstetrics and Gynecology, Associate Dean for Regulatory Oversight and Research Initiatives, Duke University
Overview

Advisory Committee on Immunization Practices (ACIP) Recommendations on Vaccination in Pregnancy
CDC’s Recommendations for Tdap and Influenza Vaccines During Pregnancy

- **Tdap vaccine:** CDC recommends a dose of Tdap to be administered during each pregnancy, irrespective of the patient's prior history of receiving Tdap. Optimal timing for Tdap administration is between 27 and 36 weeks gestation although Tdap may be given at any time during pregnancy\(^a\)

- **Influenza vaccine:** CDC recommends that all women who are pregnant or who might be pregnant in the upcoming influenza season receive the influenza vaccine. Influenza vaccination can be administered at any time during pregnancy, before and during the influenza season\(^b\)

- CDC recommends influenza and Tdap vaccines for pregnant women during each pregnancy to protect both infants and mothers

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\(^a\) MMWR. *Morb Mortal Wkly.* 2013.

Background

- When infants are born to mothers immunized against seasonal influenza during pregnancy:
  - The likelihood of influenza-like illness and influenza-related hospitalizations decreases\(^a\)
  - Fewer newborns are born small for gestational age and the rate of preterm birth decreases\(^b,c,d\)
- When infants are born to mothers vaccinated with Tdap during pregnancy had a 78% decrease in pertussis confirmed cases and a 68% reduction in pertussis-associated hospitalizations\(^e\)

\(^b\) Regan AK. *The Pediatric Infectious Disease Journal*. 2016.  
\(^c\) Richards JL. *Clinical Infectious Diseases*. 2013.  
Background

- Coverage of recommended vaccines for pregnant women remains low—leaving a number of pregnant women and their infants at risk for complications from vaccine-preventable diseases
  - Only 50.3% of women received influenza vaccination before or during pregnancy in 2014-2015
  - Only 41.7% of pregnant women received Tdap vaccination from 2007-2013
  - Concerns regarding the safety of influenza vaccines during pregnancy continue to be a barrier to vaccine uptake

b  Kharbanda EO. *Vaccine.* 2016.
Vaccination during Pregnancy

- Live vaccines should not be administered to women known to be pregnant
- In general, inactivated vaccines may be administered to pregnant women for whom they are indicated
- There are exceptions for both of these general statements (live and inactivated)
- Some vaccines are specifically indicated because of pregnancy
Pregnancy and Inactivated Vaccines

- Inactivated influenza vaccines and Tdap need to be administered to pregnant women – full recommendation
- Tdap – special schedule (every pregnancy)
Pregnancy and Inactivated Vaccines

- Inactivated vaccines besides inactivated influenza and Tdap
- In general, inactivated vaccines can be administered
  - NO CONTRAINDICATIONS
  - Precautions – IPV, HPV
  - Special considerations:
    [www.cdc.gov/vaccines/pregnancy/hcp/guidelines.html](http://www.cdc.gov/vaccines/pregnancy/hcp/guidelines.html)
    - Hib – no recommendations language at all
    - HepA – risk-benefit decision
    - HepB – recommended in some circumstances
    - MenACWY – use if indicated
    - MenB – risk-benefit decision
    - PCV13 – no recommendation language at all
    - PPSV23 – inadequate data
Post-receipt of Vaccine

- Avoid conception for 28 days (i.e. 4 weeks) following receipt of a live vaccine
- No need to avoid conception following receipt of an inactivated vaccine
- No intervention if an inactivated vaccine is administered during pregnancy (but registries exist for reporting)