

# Adolescent Vaccines

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# What are the four ACIP vaccines recommended for ALL preteens at age 11 or 12 years old?

- Tetanus-diphtheria-acellular pertussis vaccine (Tdap)
- Meningococcal conjugate vaccine (MCV4)
- Human papillomavirus vaccine (HPV)
- Influenza vaccine (Flu)

# Why Do Adolescents Need a Tdap Vaccine?

- Protection provided by the DTaP vaccine series wanes over time, so adolescents need Tdap as a booster
- The cocoon effect can help protect those who are not old enough to receive vaccine.
- If patient is pregnant, Tdap should be given during the third trimester of every pregnancy

# Tdap Recommendations for Adolescents

- Two brands:
  - Boostrix® (GlaxoSmithKline)
    - Approved for persons 10 years of age and older
  - Adacel® (sanofi pasteur)
    - Approved for persons 11-64 years of age
- A single dose of Tdap is recommended for adolescents 11-18 years of age (preferably at 11 or 12 years of age)

# Tdap Catch-Up Schedule

- Children age 7 years or older with an incomplete history of DTaP should be given Tdap as the first dose in the catch-up series.
- If additional doses are needed, Td should be given.
- Example # 1: An 8 year old has only received one dose of DTaP. To complete their series they will need:

1 dose of Tdap → 4 weeks → 1 dose of Td (1 dose of Td every 10 years thereafter)

- Example # 2: A 10 year old has never been immunized, but mom decides to start now. To be fully protected and in compliance with school requirements, they will need:

1 dose of Tdap → 4 weeks → 1 dose of Td → 6 months → 1 dose of Td (1 dose of Td every 10 years thereafter.)

**DTaP, Tdap, and Td Catch-up Vaccination Recommendations  
by Prior Vaccine History and Age**

<http://www.immunize.org/catg.d/p2055.pdf>

# Meningococcal Disease

- About 1,000 – 1,200 people get meningococcal disease each year in the U.S.
- 10-15 percent of these people die.
- 20 percent of those who survive, live with permanent disabilities, such as brain damage, hearing loss, loss of kidney function or limb amputations.
- 1 in 5 U.S. teens have not yet received their first dose of recommended meningococcal vaccination and remain unprotected.
- Less than one-third of first dose recipients have received the recommended booster dose.

# Meningococcal Conjugate Vaccines

- Two quadrivalent meningococcal conjugate vaccines (offered through the Maine Immunization Program) :
  - Menactra® (SanofiPasteur)
    - Approved for persons 9 months through 55 years of age
    - Protects against serogroups A, C, Y and W-135
  - Menveo® (Novartis)
    - Approved for persons 2 months through 55 years of age
    - Protects against serogroups A, C, Y and W-135

# Who Should Get Meningococcal Vaccine and When?

- Two doses of MCV4 are recommended for adolescents 11 through 18 years of age: the first dose at 11 or 12 years of age, with a booster dose at age 16.
- If the first dose is given between 13 and 15 years of age, a booster dose is still needed at age 16.
- If the first dose is given after the 16th birthday, a booster is not needed.



# Serogroup B Meningococcal Vaccines

- In October 2014, the Food and Drug Administration (FDA) licensed the first serogroup B meningococcal (MenB) vaccine (MenB-FHbp [Trumenba, Wyeth Pharmaceuticals, Inc.]) as a 3-dose series.
- In January 2015, FDA licensed a second MenB vaccine (MenB-4C [Bexsero, Novartis Vaccines]) as a 2-dose series.
- Both vaccines are licensed for use in persons aged 10–25 years.
- Approved by ACIP for high-risk patients, but not yet for routine use.

# Serogroup B Meningococcal Vaccines

## Recommendations

- People 10 years and older at increased risk for meningococcal disease should receive MenB vaccine, including:
  - Persons with persistent complement component deficiencies
  - Persons with anatomic or functional asplenia
  - Microbiologists routinely exposed to isolates of *Neisseria meningitidis*
  - Persons identified as at increased risk because of a serogroup B meningococcal disease outbreak

# Product availability and cost

## MENB - Meningococcal Group B

- Currently two products on the market, one of the products has two different presentations.
- Trumenba (MenV-4C)
- NDC# 00005-0100-10
- Presentation: 10 pack - 1 dose syringe
- Federal Cost: \$85.72
- Manufacturer: Pfizer
  
- Bexsero (MenB-FHbp)
- NDC# 46028-0114-01
- Presentation: 10 pack - 1 dose syringe
- Federal Cost: \$122.35
- Manufacturer: GlaxoSmithKline
  
- NDC# 46028-0114-02
- Presentation: 1 pack - 1 dose syringe
- Federal Cost: \$122.35
- Manufacturer: GlaxoSmithKline

# Dosing Schedule

- Trumenba (MenV-4C)
  - 2-dose series
  - With doses administered at least 1 month apart
- Bexsero (MenB-FHbp)
  - 3-dose series
  - With second and third doses administered 2 and 6 months after the first

# Influenza

- Preteens and teens should receive the influenza vaccine every year
- The body's immune response declines over time, so an annual flu vaccine is needed for optimal protection
- It takes about two weeks after vaccination for the antibodies to develop in the body and provide protection
- Two vaccines available:
  - Shot
  - Nasal
- Maine Immunization Program only providing Quadrivalent flu vaccine which protects against two influenza A viruses and two influenza B viruses.

# Human Papillomavirus (HPV)

- Over 100 types of HPV
- More than 40 HPV types that can infect genital areas of males and females
- 17,500 women and 9,300 men affected by cancers caused by HPV
- 4,100 will die from cervical cancer

# HPV Recommendations

- Effective for females from age 11 up to age 26
  - Males from age 11 through 21
  - Can be given as early as 9 years old
  - Recommended that all three shots given over six months
    - Dose 1 – Dose 2 = 4 weeks
    - Dose 2 – Dose 3 = 12 weeks
- \* 3<sup>rd</sup> dose should be given 24 weeks after 1<sup>st</sup> dose
- Series does not need to be repeated if someone waits longer between shots

# Gardasil 9 Vaccine

- Given to girls and women 9 through 26 years old and boys 9 through 21 years old (21 – 26 for high risk males)
- Gardasil protects against HPV types 6, 11, 16, 18, 31, 33, 45, 52, and 58
- Given at the same schedule
- If patient has received different vaccine for previous doses, series can be completed with Gardasil 9
- No booster with Gardasil 9 is recommended if series was completed with Gardasil 4





# How Do You Talk to Parents About the HPV Vaccine?

What are some approaches that you have taken, that have proved to be effective when talking to parents about HPV?

Successes?

What worked?

What did not work?



## Contact Information:

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