

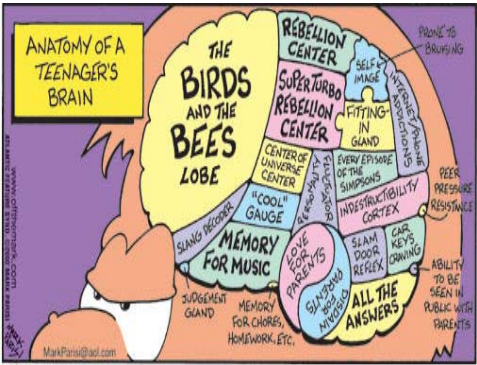
Adolescent Immunizations


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What is an adolescent?



ANATOMY OF A TEENAGER'S BRAIN





“We’re going to have a whole bunch of new recommendations for adolescents, and we have very few concrete ideas of how we’re going to make sure adolescents actually get these vaccines.”
— Gary Freed, MD.

Barriers

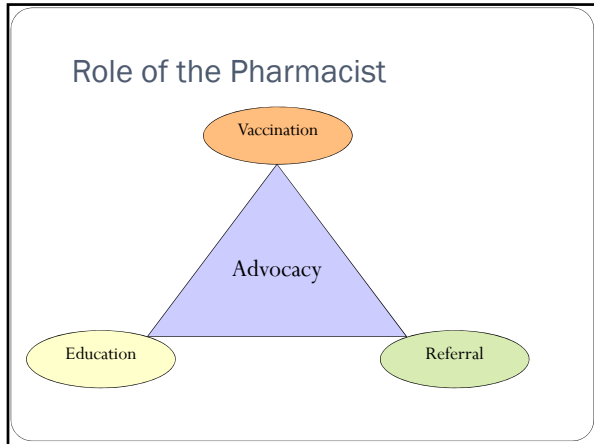
- Awareness
- Acceptance
- Lost opportunities
- Misinformation
- Time Constraints
- Cost



Solutions

- Recommendations of Society for Adolescent Medicine
 - Development of 3 distinct adolescent vaccination visits/platforms
 - 11-12 year old
 - 14-15 year old
 - 17-18 year old
 - Use of existing systems
 - Simultaneous administration of multiple vaccines
 - Use of “non-comprehensive” visits
 - **Use of alternative vaccination sites**
 - Education of providers and parents/adolescents

Source: Journal of Adolescent Health 2006



- ### Building an Adolescent Immunization Program
- Stock appropriate vaccines
 - Collaborate with other health care providers
 - Market services
 - Physicians
 - Parents/caregivers
 - Schools
 - Stay up to date

- ### Targeting Adolescents
- Point of dispensing
 - Oral contraceptives
 - Antibiotics
 - Nonprescription counseling
 - Messaging in other areas
 - Cosmetics
 - School supplies
 - Specialty areas
 - National Immunization Awareness Month – August
 - Educational materials
 - Reminders
 - Posters
 - Don't forget the Parents!!

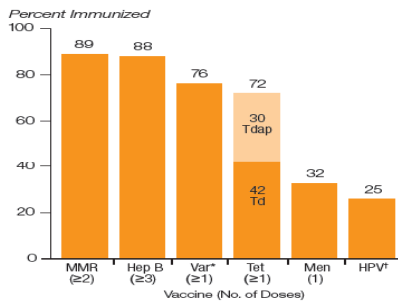
Adolescent Vaccines

- Routine
 - Tetanus/diphtheria/pertussis, acellular (Tdap)
 - Human Papilloma virus (HPV)
 - Meningococcal
- High Risk
 - Pneumococcal
 - Haemophilus influenzae B (HiB)
 - Influenza
 - Travel (Hepatitis A, Typhoid, Yellow Fever, etc)
- Catch-up
 - Varicella
 - Measles/Mumps/Rubella (MMR)
 - Hepatitis B
 - Hepatitis A

Adolescent Visit



Vaccination Rates in Adolescents 13-17 Years of Age, U.S.—2007



*Coverage among teens without a reported history of disease.
 †HPV rates among adolescent females only.
 Hep=hepatitis; Men=meningococcal disease; NA=not available;
 Tet=tetanus-containing vaccine; Var=varicella.
 Source: CDC. *MMWR*. 2008;57(40):1100-1103.⁴

Changes in the 2010 Adolescent Schedule

- Combination vaccine statement
- Meningococcal conjugate revaccination
- Use of HPV2 for females and permissive use of HPV4 for males
- Permissive use of hepatitis A vaccine for children older than 23 months

Combination Vaccine Statement

- 1999-2009
 - Licensed combination vaccines may be used whenever any components of the combination is indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series.
- 2010
 - The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Considerations should include provider assessment, patient preference, and the potential for adverse events.
 - Wording approved by ACIP in June 2009 and posted on the ACIP website on August 28
 - Will be included in the 2010 revision of the *General Recommendations on Immunization*

Meningococcal Revaccination

- 2005
- ACIP made no recommendation about revaccination pending the availability of additional data
- Serologic data are now available from the manufacturer that show significant decline in antibody 3-5 years after vaccination although few "breakthrough" cases have been reported
- 2009
 - Children through age 18 years who received their first dose of MCV4 or MPSV4 at ages 2 through 6 years and remain at increased risk for meningococcal disease should receive an additional dose of MCV4 three years after their first dose

MMWR 2005;54(RR-7)

MMWR 2009;58(No. 37)

MCV4 Revaccination Recommendations

- Persons through age 55 years who received a dose of MCV4 or MPSV4 after age 6 years and remain at increased risk for meningococcal disease should receive an additional dose of MCV4 five years after their previous dose
- High-risk persons who should be revaccinated with MCV4:
 - persistent complement component deficiency
 - anatomic or functional asplenia
 - Microbiologists with prolonged exposure to *Neisseria meningitidis*
 - frequent travelers to or persons living in areas with high rates of meningococcal disease
- MCV4 revaccination is NOT recommended for persons whose only risk factor is living in on-campus housing (i.e., college student living in a dormitory)

MMWR 2009;58(No. 37)

HPV Vaccines

- HPV4 (Gardasil, Merck)
 - contains HPV types 16, 18, 6 and 11
 - approved for the prevention of cervical, vaginal and vulvar cancers (in females) and genital warts (in females and males)
- HPV2 (Cervarix, GSK)**
 - contains HPV types 16 and 18
 - approved for the prevention of cervical cancers in females



HPV Vaccine Recommendations*

- HPV4 or HPV2 is recommended for the prevention of cervical precancers and cancers in females
- HPV4 is recommended for the prevention of cervical, vaginal and vulvar precancers and cancers and genital warts in females
- Administer the first dose to females at age 11 or 12 years
- Administer the series to females at age 13 through 18 years if not previously vaccinated
- HPV4 may be administered in a 3-dose series to males aged 9 through 18 years to reduce their likelihood of acquiring genital warts

*ACIP provisional recommendations, October 2009

Permissive Use of Hepatitis A Vaccine

- Footnotes of all 3 schedules revised to allow vaccination of children older than 23 months if immunity is desired

What about in Virginia?

- 619,000 adolescents
- 2 ½ minutes to administer a vaccine
- Estimate 3 vaccines per adolescent
- 77,375 man hours to immunize the adolescent population

Virginia Immunization Requirements for School Entry

- DTaP/DTP – minimum of 4 doses
 - Tdap booster prior to 6th grade entry
- IPV – minimum of 3 doses
- Hepatitis B – must have complete series prior to entering 6th grade
- MMR – minimum of 2 doses
- Varicella – susceptible children born on or after January 1, 1997
- HPV vaccine complete series prior to 6th grade entry
- Meningococcal for college entry

Pharmacist Vaccination

- < 18 years of age
 - Influenza vaccine only
 - Authority to mass immunize via protocol
- < 18 years of age
 - Need prescription and parent signature on immunization waiver (consent)
- 18-21 years of age
 - Authority to mass immunize via protocol
 - Physician and pharmacist generate protocol
 - Approved by the Virginia Board of Nursing
 - Grants pharmacist right to immunize any patient wanting vaccine covered in protocol

Virginia Immunization Information System

Manager: Greg Dennis, MS

Welcome to VIIS - Virginia Immunization Information System. The goal of VIIS is to support individuals, families and clinicians in making the best health decisions by providing a statewide, readily accessible and reliable Immunization Information System. Please use the quick links on the right to explore VIIS. You will find information for parents, providers, health plans and schools along with the user manual and an enrollment package.



[Click Here](#) to see what VIIS can do for you.

[Click Here](#) for The August 2009 VIIS News Letter.

Resources in Virginia

- Virginia Department of Health
<http://www.vdh.state.va.us/epidemiology/immunization/>
- Project Immunize Virginia <http://www.immunizeva.org/>
- Virginia Pharmacists Association
<http://www.vapharmacy.org>

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Adolescent Immunizations in Virginia

 PIV presents a state-wide program on adolescent vaccines to increase awareness and educate primary care and specialty physicians as well as other healthcare providers in the Commonwealth of Virginia.

Course Objectives
Physicians are better informed about adolescent vaccines
More patients will receive appropriate vaccines in timely manner
Better health outcomes such as less vaccine-preventable diseases and fewer disease complications

Instructions for Viewing
All three (3) webcasts are required viewing to obtain CME credit. At the completion of Module 3, participants must complete a post-test. CME registration information and an evaluation, then click "Submit". CME certificates will be issued and sent electronically to participants who pass with 70% or better on the post-test. This CME activity was planned and produced in accordance with the Accreditation Council for Continuing Medical.

Note: Each Powerpoint presentation may be opened or saved by clicking on the ppt file within the presentation's "downloads" tab.

“If the person you are talking to doesn’t appear to be listening, be patient, it may simply be that he has a small piece of fluff in his ear.”
- *Winnie the Pooh*

