Immunization Update 2013

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Outline

• Vaccine update
  – Combined child/adolescent immunization schedule
  – Updated recommendations for certain vaccines
  – Vaccines in pipeline
• Improving vaccination rates
  – Methods to increase immunization rates in your clinical practice
  – Patients/parents who refuse
• Vaccines and the Affordable Care Act

VACCINE UPDATE

Combined child/adolescent immunization schedule

Advisory Committee on Immunization Practices (ACIP) and CDC Immunization Schedule

• Published at least annually in the MMWR
• Schedule approved by:
  – American College of Physicians (ACP)
  – American Academy of Family Physicians (AAFP)
  – American College of Obstetrics and Gynecology
  – American College of Nurse-Midwives
  – American Academy of Pediatrics (AAP)
Combination of the Pediatric and Adolescent Schedules
http://www.cdc.gov/mmwr/preview/mmwrhtml/su6201a2.htm

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age Groups</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMR</td>
<td>6-11 months old traveling internationally</td>
<td>Administer to infants 6-11 months old traveling internationally</td>
</tr>
<tr>
<td></td>
<td>12-15 months</td>
<td>Revaccinate with a 2 dose series at ages 12-15 months and second dose at ages 4-6 years</td>
</tr>
<tr>
<td></td>
<td>4-6 years</td>
<td>A provider diagnosis of measles, mumps, or rubella is not considered acceptable evidence of immunity</td>
</tr>
</tbody>
</table>

Pneumonia - PCV-13
- PCV-13 has replaced PCV7 as the primary series
- Administer a 3-dose series at ages 2, 4, 6 months and a booster at 12-15 months
- Administer 1 dose of PCV-13:
  - 2-5 years of age whether they have received appropriate PCV7 series or if not
  - 6-18 years of age if immunocompromised and previously unvaccinated

Rotavirus (RV-1, RV-5)
- RV-1: 2-dose series at 2, 4 mo
- RV-5: 3-dose series at 2, 4, 6 mo
- If any dose in series was RV-5 or unknown, a total of 3 doses of RV vaccine should be administered
- The maximum age for first dose in the series is 14 wk, 6 d and the maximum age for the final dose in the series is 8 mo, 0 d
### Hemophilus influenza-b (HIB)

- Series usually completed by 15 mo
- If >15 mo and unvaccinated, give 1 dose
- If unvaccinated and ≥5 yrs and have sickle cell disease, leukemia, HIV infection, or anatomic/functional asplenia, give 1 dose

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### Key point

Use the schedule and the footnotes as there are numerous special situations that require modification of an individual patient’s schedule.

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### Tetanus-diphtheria-acellular pertussis (Tdap)

- Administer 1 dose to all adolescents ages 11-12 years  
- All adults (>18 years):  
  - Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 years  
  - Administer to all adults who have not previously received Tdap  
  - Give regardless of interval since most recent Td
### Tdap

- Adults > 65 years should receive one dose
- Give to all pregnant women in every pregnancy regardless of their Tdap immunization history

![Image](image1.png)

### Pneumovax (PPSV23)

- Indications in children
  - Immunocompromised, cochlear implants, chronic lungers, chronic heart disease
- Adults with certain medical conditions: should receive 2 doses before age 65
- Give at age 65 as long as it has been >5 years since most recent dose

### Zoster

- Single dose for > 60 yrs regardless of prior episode of zoster
- FDA licensed vaccine: ≥ 50 yrs ; ACIP: ≥60 yrs
- Contraindicated in “severe immunodeficiency”

![Image](image2.png)

### Gardasil (HPV4)

- All adolescents ages 11-12 yrs
- Now recommended routinely for males
- May be administered as young as 9 yrs
- Give to all adolescents ages 13-18 if not previously vaccinated

![Image](image3.png)
<table>
<thead>
<tr>
<th>Vaccines in pipeline</th>
<th>Group B Streptococcus (GBS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No consistent list; multiple stakeholders</td>
<td>• Leading cause of sepsis and meningitis in first 3 months of age</td>
</tr>
<tr>
<td>• Emphasis on worldwide diseases:</td>
<td>• &gt;8 million deaths in 2008</td>
</tr>
<tr>
<td>– Malaria</td>
<td>• Maternal GBS vaccine planned Phase III trials this year</td>
</tr>
<tr>
<td>– Dengue</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zoster</th>
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<tbody>
<tr>
<td>• Current phase III trials using recombinant DNA technology</td>
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<table>
<thead>
<tr>
<th>Influenza</th>
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</thead>
<tbody>
<tr>
<td>• Much work being done; various stages of development</td>
</tr>
<tr>
<td>• “Universal” influenza vaccine</td>
</tr>
</tbody>
</table>
Early trials

- HIV
- Staph aureus
- Hepatitis C
- Clostridium difficile

In regulatory process

- MenHibrix (Hib-MenCY-TT): Neisseria meningitis groups C & Y & Haemophilus influenzae type b disease
- Nimenrix (MenACWY-TT): Neisseria meningitis groups A, C, W & Y disease

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IMPROVING VACCINATION RATES
Practice efficiency and systems to improve vaccination rates
### Steps to increasing immunization rates

- Appoint a champion
- Obtain adequate amounts of vaccine
- Document in one location of the EMR
- Educate residents, faculty, staff, families

### Steps to increasing immunization rates

- Display CDC immunization recommendations in clinical areas
- Update list of vaccines in clinical areas
- Measure improvement quarterly

### Key strategies

- **Educate staff and patients**
  - Provide physicians, nurses with information about vaccine requirements
  - Emphasize the importance of documenting immunizations
  - Distribute handouts that emphasize the importance of vaccines

### Key strategies

- **Be consistent with follow-up and reminders**
  - Publish/post a reminder schedule for routine immunizations
  - Discuss this schedule during non-wellness office visits
  - Implement an immunization reminder system so that all patients are contacted regularly by phone, e-mail, postcards
Key strategies

• Accommodate patients
  – Offer evening/weekend access
  – Provide open/flexible scheduling to accommodate busy parents
  – Participate in the Vaccines for Children Program (VFC) to provide free immunizations to those who qualify

Key strategies

• Focus on one vaccine at a time
  – Use your EMR to develop a list of patients who have not received the vaccine
  – Determine last documented vaccination
  – Contact patient and offer appointment to patient who needs the vaccine

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IMPROVING VACCINATION RATES

The “vaccine hesitant” patient/parent
### Headlines

<table>
<thead>
<tr>
<th>Headline</th>
<th>Source</th>
<th>Date</th>
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<tbody>
<tr>
<td>Doctors &quot;fire&quot; patients who refuse vaccines for their children: Ethical?</td>
<td>CBS NEWS</td>
<td>11/30/12</td>
</tr>
<tr>
<td>Refuse vaccines and risk dismissal by doctor</td>
<td>USA TODAY</td>
<td>11/14/11</td>
</tr>
<tr>
<td>Forcing Flu Shots on Health Care Workers: Who Is Next?</td>
<td>National Vaccine Information Center</td>
<td>9/29/10</td>
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</table>

### Prevalence of vaccine refusal

- 8% of physicians: ≥10% of parents refused a vaccine
- 20% reported: ≥10% requested altered schedule
- 53% of physicians: spent 10–19 min counseling
- 8%: spent ≥20 minutes counseling

### Reasons for refusal

- Fear of side effects heard from media and word of mouth (52%)
- Belief that the disease not harmful (26%)
- Other

### Adults

- Little or no increase in vaccine rates from 2010 to 2011:
  - HPV vaccine: 30%
  - Tdap: 13% of adults 19-64 years
  - Pneumococcal: 62% adults aged >65 years
  - Herpes zoster: 16%
Refusers more likely to reside in well-educated, higher income areas than non-refusers

"Because these diseases are being prevented by vaccines, people no longer remember how bad they were."

So, why aren’t vaccination rates improving?

- Decreased perception of gravity of problem
  - Doctors don’t offer
  - Patients refuse
- Doctors uncomfortable or not knowledgeable in responding to parent/patient concerns
  - Requires time and resources
- No information clearinghouse

Individual vs Population health
Tips

• Patients/parents should be comfortable voicing concerns in a non-threatening environment

Tips

• Determine if valid contraindications

• Assess parental reasons for objection in non-threatening manner; background?

Resources

• Provide factual information that addresses the misconceptions or specific concerns

• Be able to recommend good websites

• IAC—Immunization Action Coalition
  – http://www.immunize.org
  – Information and resources for physicians, staff, and patients
  – Unprotected People Reports
  – Vaccines for adults
  – Talking points for busy physicians
<table>
<thead>
<tr>
<th>Resources</th>
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</thead>
<tbody>
<tr>
<td>• CDC</td>
</tr>
<tr>
<td>– Resources for physicians and practices</td>
</tr>
<tr>
<td>– Handouts for patients/families</td>
</tr>
<tr>
<td>• American Academy of Pediatrics</td>
</tr>
<tr>
<td>– Information on preparing for the visit, during the visit, and after the visit</td>
</tr>
<tr>
<td>– Information for physicians and for families</td>
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<table>
<thead>
<tr>
<th>Common concerns/challenges</th>
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<tbody>
<tr>
<td>• Brief points about the most common objections; adapted from the IAC materials</td>
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<table>
<thead>
<tr>
<th>Mercury and autism</th>
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<tbody>
<tr>
<td>• Thimerosal (preservative)</td>
</tr>
<tr>
<td>• 2 forms of mercury:</td>
</tr>
<tr>
<td>– Ethylmercury– not dangerous; in thimerosal</td>
</tr>
<tr>
<td>– Methylmercury- causes in nervous system damage; NOT in thimerosal nor vaccines</td>
</tr>
<tr>
<td>• Thimerosal not used since 2001</td>
</tr>
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<table>
<thead>
<tr>
<th>Aluminum</th>
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<tbody>
<tr>
<td>• Used as adjuvant in vaccines for &gt;70 yr</td>
</tr>
<tr>
<td>• Most common metal found in nature</td>
</tr>
<tr>
<td>• Rapidly eliminated</td>
</tr>
<tr>
<td>• Infants get more aluminum in breast milk or formula than in vaccines</td>
</tr>
</tbody>
</table>
### Formaldehyde
- Inactive viruses; detoxify tetanus and diphtheria antigens
- Found in multiple household products
- Usual levels in blood stream higher than levels found in vaccines

### MMR and autism
- Multiple large well-designed studies have found no link
- The one 1998 study that started this concern was retracted as fraudulent

### Better sanitation
- Better sanitation helps
- Disease incidence/prevalence have only decreased with vaccines
- Outbreaks of measles, pertussis and varicella traced to pockets of unvaccinated children

### Infection develops immunity
- Many cases: true
- Serious and life threatening or fatal complications of natural disease
### It’s my right not to vaccinate

- All states offer medical exemption
  - 48 states religious exemption
  - 21 states personal exemption
- Unvaccinated children at higher risk contracting serious disease
- Time out of school/daycare; parental time away from work

### Key point

**Be prepared**

- Know most common questions and objections
- Have easy access to materials and handouts for you and your patients
- Bookmark useful sites

### Reference document

Don’t worry about anticipating every possible question; most concerns haven’t changed in decades!

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### AFFORDABLE CARE ACT

**Vaccine Implications**

- **Impact on Immunizations**
  - Intent: assure near-universal, accessible and affordable coverage by leveraging the existing system of private and public health insurance
    - Note: intent is to improve access, not to improve payment to providers

### Private Insurance Plans

- ACA: mandates provision of ACIP-recommended vaccines with no co-pay
- New ACIP recommendations must be adopted within a year of CDC adoption
- No plan is required to cover vaccinations delivered by an out-of-network provider (pharmacies, community vaccine blitz)

### Grandfathered Plans

- Existing individual and group health plans can continue with grandfathered status
Grandfathered status continued if:

- Addition of new benefits
- Modest adjustments to existing benefits and cost
- Voluntarily adopting new patient protections established under ACA
- Changes comply with state or federal requirements

Grandfathered status lost if:

- Plans reduce or eliminate existing coverage
- Plans increase deductibles or co-payments
- Require patients to switch to different grandfathered plan with fewer benefits or higher cost-sharing to avoid new patient protections in ACA
- Plans are acquired by, or merge with, another plan to avoid complying with ACA

Up to half may lose that status by the end of this year

<table>
<thead>
<tr>
<th>Medicaid</th>
<th>Medicare</th>
</tr>
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</table>
| • Effective 2014: all non-elderly persons with income up to 138% Federal Poverty Level are Medicaid eligible  
>19 million more Americans are expected to be eligible for Medicaid benefits, a 25% increase  
• Increased coverage for immunizations for newly eligible enrollees | • All Medicare beneficiaries receive a personalized prevention plan that incorporates ACIP-recommended vaccines  
• All cost-sharing and copayment is eliminated for Part B vaccines; Part D still has copayment  
• GAO study on impact of Medicare Part D payment on access to immunizations |
### Community Health Centers (CHC)

- Community Health Center Fund established, $11 billion over 5 years to expand CHC operations
- Number of patients served expected to double to 35 million by 2019
- Increases access to immunizations for millions of children and adults in medically underserved communities

### Key points

- Near universal immunization coverage
- Access for newly insured especially in medically underserved communities
- Up to one year lag time in health plan implementation of ACIP recommendations
- Medicare part D vaccine cost to patient uncertain