Refugee Immunization Update 2010

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Deputy State Epidemiologist
12 August 2010
Outline

1. Refugee Health Policies
2. Required Vaccines and Recent Changes
3. Procedure for Vaccination Assessment Status
4. Review of US recommended vaccines
5. Vaccine “catch up” schedule
6. Vaccine Contraindications
7. VAERS
Refugee Health Policies

• Decisions are made by CDC DGMQ, ACIP
  – Division of Global Migration and Quarantine
  – Advisory Committee on Immunization Practices
• Requirements apply to refugees when they apply for adjustment of status
  – More than one year after arrival
• NOT at their time of initial admission
What is DGMQ?

• CDC Division of Global Migration and Quarantine
• “Statutory responsibility to make and enforce regulations necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries.”
• Activities in 4 parts:
  – Immigration and Refugee Health
  – Quarantine
  – Animal Importation
  – Travelers’ Health
Division of Global Migration and Quarantine

About the Division

The Division of Global Migration and Quarantine has statutory responsibility to make and enforce regulations necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the United States.

DGMQ achieves these things through Immigrant and Refugee Health, Quarantine, Animal Importation, and Travelers' Health activities.

New! Spotlight - Past is prologue: Pandemic influenza

A just-released special issue of Public Health Reports, the official journal of the U.S.
What is ACIP?

• Advisory Committee on Immunization Practices
• Group of 15 vaccine experts who provide written guidance on the vaccination of children and adults in the US.
• Decisions are based on the most accurate and up-to-date information that is available.
• Guidance is then provided to the Director of the CDC and Secretary of HHS.
Vaccines & Immunizations

Vaccines Home > Recommendations and Guidelines > ACIP

Vaccine-Related Topics

- Immunization Schedules
- Recommendations and Guidelines
  - Advisory Committee on Immunization Practices (ACIP)
  - Vaccine Storage & Handling
  - Vaccine Administration
  - Recalled Vaccines
  - Reminder Systems and Strategies for Increasing Vaccination Rates
- Vaccines & Preventable Diseases

Recommendations and Guidelines:
Advisory Committee on Immunization Practices (ACIP)

Welcome to...

ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES

ACIP topics:

- Recommendations
- Meetings
- Resources
- Committee
- About ACIP

Interim ACIP Meeting: Thursday August 5, 2010
Medical Exam Requirements

- Applicants must show proof of having received all required vaccinations.
- If not, they should receive the first dose of required vaccines at that initial visit – follow up with PCP to complete the series
- Immigrants in the US who are applying to change their status to become “permanent residents” must also have been vaccinated.
New Vaccination Criteria

• Changed December 14\textsuperscript{th}, 2009
• Removal of HPV and zoster vaccines from the list of required vaccinations.
• CDC will now use three criteria to decide which of the ACIP recommended vaccines (for the general public) will be required for US immigrants.
3 Criteria for determining which vaccine is “required”

1. Age appropriate for the immigrant applicant
2. Protection against a disease that has the potential to cause an outbreak
3. Protection against a disease that has been eliminated or is in the process of elimination
# Required Vaccines (#15)

<table>
<thead>
<tr>
<th>Mumps</th>
<th>Hepatitis A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>Hepatitis B</td>
</tr>
<tr>
<td>Rubella</td>
<td>Rotavirus</td>
</tr>
<tr>
<td>Polio</td>
<td>Meningococcal</td>
</tr>
<tr>
<td>Tetanus</td>
<td>Varicella</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>Pneumococcal</td>
</tr>
<tr>
<td>Pertussis</td>
<td>Seasonal Influenza</td>
</tr>
<tr>
<td>H influenza type B</td>
<td></td>
</tr>
</tbody>
</table>
Division of Public Health Services
New Hampshire DHHS
Procedure for Vaccination Assessment Status

1. Determine the age of the applicant
2. Review medical history and records
3. Determine which vaccines are necessary
4. Assess contraindications and precautions
5. Assess laboratory needs
Procedure for Vaccination Assessment Status

1. Determine the age of the applicant
2. **Review medical history and records**
3. Determine which vaccines are necessary
4. Assess contraindications and precautions
5. Assess laboratory needs
Vaccination Documentation

• 2 reliable sources
  – Vaccination record
  – Copy of medical chart with MD documentation

• Must include date of receipt

• Self reported doses are not acceptable

• Vaccinations received outside the US are assumed to have adequate potency
Procedure for Vaccination Assessment Status

1. Determine the age of the applicant
2. Review medical history and records
3. **Determine which vaccines are necessary**
4. Assess contraindications and precautions
5. Assess laboratory needs
Laboratory Evidence of Immunity

• Antibodies are acceptable for:
  – Measles
  – Mumps
  – Rubella
  – Hepatitis A/B
  – Polio
  – Varicella

  • (If the refugee gives a reliable history of illness, this is sufficient for documentation of immunity.)
**Recommended adult immunization schedule, by vaccine and age group - United States, 2010**

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>AGE GROUP</th>
<th>19–26 years</th>
<th>27–49 years</th>
<th>50–59 years</th>
<th>60–64 years</th>
<th>≥65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, diphtheria, pertussis (Td/Tdap)</td>
<td>1.⁴</td>
<td>Substitute one-time dose of Tdap for Td booster; then boost with Td every 10 years</td>
<td>Td booster every 10 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human papillomavirus²⁺</td>
<td>3 doses (females)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella³⁺</td>
<td>2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoster⁴</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella⁵⁺</td>
<td>1 or 2 doses</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza⁶⁺</td>
<td>1 dose annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal (polysaccharide)⁷⁺</td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A⁹⁺</td>
<td>2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B¹⁰⁺</td>
<td>3 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal¹¹⁺</td>
<td>1 or more doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Covered by the Vaccine Injury Compensation Program.*

For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection). Recommended if some other risk factor is present (e.g., based on medical, occupational, lifestyle, or other indications). No recommendation present.
Vaccines that might be indicated for adults, based on medical and other indications - United States, 2010

Division of Public Health Services
New Hampshire DHHS
Varicella vaccination

1. All adults without evidence of immunity to varicella should receive 2 doses of single-antigen varicella vaccine if not previously vaccinated or the second dose if they have received only 1 dose, unless they have a medical contraindication.

2. Pregnant women should be assessed for evidence of varicella immunity. Women who do not have evidence of immunity should receive the first dose of varicella vaccine upon completion or termination of pregnancy and before discharge from the health-care facility. The second dose should be administered 4--8 weeks after the first dose.
Measles, mumps, rubella (MMR) vaccination

1. Measles component: Adults should receive unless they have
   1. A medical contraindication
   2. Documentation of vaccination with 1 or more doses of MMR
   3. Laboratory evidence of immunity
2. A second dose of MMR vaccine, administered 4 weeks after the first dose, is recommended
3. Rubella component: For women of childbearing age, rubella immunity should be determined, and women should be counseled regarding congenital rubella syndrome. Women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the health-care facility.
Pneumococcal polysaccharide (PPSV) vaccination

1. One-time revaccination after 5 years is recommended for persons with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy) or persons with immunocompromising conditions.

2. For persons aged ≥65 years, one-time revaccination is recommended if they were vaccinated ≥5 years previously and were aged <65 years at the time of primary vaccination.
Hepatitis A vaccination

1. Single-antigen vaccine formulations should be administered in a 2-dose schedule at either 0 and 6--12 months (Havrix), or 0 and 6--18 months (Vaqta).

2. If the combined hepatitis A and hepatitis B vaccine (Twinrix) is used, administer 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, administered on days 0, 7, and 21--30 followed by a booster dose at month 12 may be used.
Hepatitis B vaccination

1. Administer or complete a 3-dose series. The second dose should be administered 1 month after the first dose; the third dose should be administered at least 2 months after the second dose (and at least 4 months after the first dose). If the combined hepatitis A and hepatitis B vaccine (Twinrix) is used, administer 3 doses at 0, 1, and 6 months.

2. Adult patients receiving hemodialysis or with other immunocompromising conditions should receive 1 dose of 40 µg/mL (Recombivax HB) administered on a 3-dose schedule or 2 doses of 20 µg/mL (Engerix-B) administered simultaneously on a 4-dose schedule at 0, 1, 2, and 6 months.
Meningococcal vaccination

1. Meningococcal conjugate vaccine (MCV4) is preferred for adults with any of the preceding indications who are aged ≤55 years; meningococcal polysaccharide vaccine (MPSV4) is preferred for adults aged ≥56 years.

2. Revaccination with MCV4 after 5 years is recommended for adults previously vaccinated with MCV4 or MPSV4 who remain at increased risk for infection (e.g., adults with anatomic or functional asplenia).
Haemophilus influenzae type b (Hib)

1. Hib vaccine generally is not recommended for persons aged \( \geq 5 \) years. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults. However, studies suggest good immunogenicity in patients who have sickle cell disease, leukemia, or HIV infection or who have had a splenectomy. Administering 1 dose of Hib vaccine to these high-risk persons who have not previously received Hib vaccine is not contraindicated.
Immunocompromising conditions

1. Inactivated vaccines generally are acceptable (e.g., pneumococcal, meningococcal, influenza [inactivated influenza vaccine]) and live vaccines generally are avoided in persons with immune deficiencies or immunocompromising conditions. Information on specific conditions is available at

   http://www.cdc.gov/vaccines/pubs/acip-list.htm
Recommended immunization schedule for persons aged 0 through 6 years --- United States, 2010

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age</th>
<th>Birth</th>
<th>1 month</th>
<th>2 months</th>
<th>4 months</th>
<th>6 months</th>
<th>12 months</th>
<th>15 months</th>
<th>18 months</th>
<th>19-23 months</th>
<th>2-3 years</th>
<th>4-6 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td>HepB</td>
<td>HepB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotavirus&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diphtheria, Tetanus, Pertussis&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DTaP</td>
<td>DTaP</td>
<td>DTaP</td>
<td></td>
<td>DTaP</td>
<td></td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em> type b&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal&lt;sup&gt;5&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>PCV</td>
<td>PCV</td>
<td>PCV</td>
<td>PCV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PPSV</td>
</tr>
<tr>
<td>Inactivated Poliovirus&lt;sup&gt;6&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>IPV</td>
<td>IPV</td>
<td>IPV</td>
<td>IPV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IPV</td>
</tr>
<tr>
<td>Influenza&lt;sup&gt;7&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Influenza</td>
</tr>
<tr>
<td>Measles, Mumps, Rubella&lt;sup&gt;8&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MMR</td>
</tr>
<tr>
<td>Varicella&lt;sup&gt;9&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Varicella</td>
</tr>
<tr>
<td>Hepatitis A&lt;sup&gt;10&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HepA Series</td>
</tr>
<tr>
<td>Meningococcal&lt;sup&gt;11&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MCV</td>
</tr>
</tbody>
</table>

Update 12/15/2009

Division of Public Health Services
New Hampshire DHHS
Recommended immunization schedule for persons aged 7 through 18 years --- United States, 2010

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>7–10 years</th>
<th>11–12 years</th>
<th>13–18 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, Diphtheria, Pertussis</td>
<td></td>
<td>Tdap</td>
<td>Tdap</td>
</tr>
<tr>
<td>Human Papillomavirus</td>
<td>see footnote 2</td>
<td>HPV (3 doses)</td>
<td>HPV series</td>
</tr>
<tr>
<td>Meningococcal</td>
<td>MCV</td>
<td>MCV</td>
<td>MCV</td>
</tr>
<tr>
<td>Influenza</td>
<td></td>
<td>Influenza (Yearly)</td>
<td></td>
</tr>
<tr>
<td>Pneumococcal</td>
<td></td>
<td>PPSV</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td></td>
<td>HepA Series</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td></td>
<td>Hep B Series</td>
<td></td>
</tr>
<tr>
<td>Inactivated Poliovirus</td>
<td></td>
<td>IPV Series</td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps, Rubella</td>
<td></td>
<td>MMR Series</td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td></td>
<td>Varicella Series</td>
<td></td>
</tr>
</tbody>
</table>

Footnotes:
1. Tetanus, Diphtheria, Pertussis
2. Human Papillomavirus
3. Meningococcal
4. Influenza
5. Pneumococcal
6. Hepatitis A
7. Hepatitis B
8. Inactivated Poliovirus
9. Measles, Mumps, Rubella
10. Varicella
### Table: Requirements for routine vaccination of adjustment of status applicants who are not fully vaccinated or lack documentation.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Birth–1 month</th>
<th>2–11 months</th>
<th>12 months–6 years</th>
<th>7–10 years</th>
<th>11–17 years</th>
<th>18–64 years</th>
<th>≥65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTP/DTaP/DT</td>
<td>NO</td>
<td></td>
<td>YES</td>
<td></td>
<td></td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Td/Tdap</td>
<td></td>
<td>NO</td>
<td></td>
<td>YES, ≥7 years old (for Td); 10–64 years old (for Tdap)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPV</td>
<td>NO</td>
<td></td>
<td>YES</td>
<td></td>
<td></td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>MMR</td>
<td></td>
<td>NO</td>
<td></td>
<td>YES, if born in 1957 or later</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotavirus</td>
<td>NO</td>
<td></td>
<td>YES 6 weeks to 8 months</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hib</td>
<td>NO</td>
<td></td>
<td>YES, 2–59 months old</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>NO</td>
<td></td>
<td>YES 12–23 months old</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td></td>
<td></td>
<td></td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal (MCV4)</td>
<td>NO</td>
<td></td>
<td></td>
<td>Yes, 11–18 years old</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td>NO</td>
<td></td>
<td></td>
<td>YES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>NO</td>
<td>YES, 2–59 months old (for PCV)</td>
<td>NO</td>
<td>YES (for PPV)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza</td>
<td>NO</td>
<td></td>
<td></td>
<td>YES, 6 months through 18 years old (annually each flu season)</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Division of Public Health Services
New Hampshire DHHS
Catch-up Immunization Schedule for Persons Aged 4 Months Through 18 Years Who Start Late or Who Are More Than 1 Month Behind—United States • 2010

The table below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child’s age.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Age for Dose 1</th>
<th>Dose 1 to Dose 2</th>
<th>Minimum Interval Between Doses</th>
<th>Dose 2 to Dose 3</th>
<th>Dose 3 to Dose 4</th>
<th>Dose 4 to Dose 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B¹</td>
<td>Birth</td>
<td>4 weeks</td>
<td></td>
<td>8 weeks (and at least 16 weeks after first dose)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotavirus²</td>
<td>6 wks</td>
<td>4 weeks</td>
<td>4 weeks³</td>
<td></td>
<td>6 months</td>
<td>6 months³</td>
</tr>
<tr>
<td>Diphtheria, Tetanus, Pertussis³</td>
<td>6 wks</td>
<td>4 weeks</td>
<td>4 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenza type b⁴</td>
<td>6 wks</td>
<td></td>
<td>4 weeks</td>
<td>8 weeks (as nasal dose)</td>
<td>8 weeks (as nasal dose)</td>
<td>8 weeks (as nasal dose)</td>
</tr>
</tbody>
</table>

¹ The recommended hepatitis B dose interval is 0, 1, and 6 months. If the 6-month dose is not administered at the scheduled age, one dose may be given at any time up to 18 months of age. If two doses are given at ages less than 18 months, the third dose should be given at age 19–35 months. ² Recommended dose interval is 2, 4, and 6 months. If two doses are given at ages less than 6 months, the third dose should be given at age 6 months or later. ³ The fourth dose should be given at age 4 through 6 years. ⁴ If given after age 12 months, a dose of tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap) should be given. ⁵ If given after age 12 months, a dose of diphtheria and tetanus toxoids and acellular pertussis vaccine (DTPa) should be given.
Procedure for Vaccination Assessment Status

1. Determine the age of the applicant
2. Review medical history and records
3. Determine which vaccines are necessary
4. Assess contraindications and precautions
5. Assess laboratory needs
Vaccine Contraindications

- Severe (anaphylaxis) reaction to a vaccine component in the past
- Immunocompromised patients should not receive live vaccines (MMR, VZV, LAIV)
- Pregnant patients should not receive live vaccines (MMR, VZV, LAIV)
- Encephalopathy within 7 days of pertussis vaccination
NOT Vaccine Contraindications

- Mild-moderate local reactions to prior vaccine
- Mild acute illness (low grade fever, URI, diarrhea)
- Recovering from an illness
- Breastfeeding
- Receiving antibiotics
- PPD placement
4 categories of “Not Medically Appropriate”

1. Not age appropriate
2. Contraindication
3. Insufficient time interval between doses
4. Not influenza season

The refugee can request an individual waiver based on religious or moral convictions and this needs to be submitted to USCIS.
VAERS

• Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS).

• Reporting forms and instructions on filing a VAERS report are available at http://www.vaers.hhs.gov or by telephone, 800-822-7967.
Other Important Points

• A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses.

• Be sure to provide VIS (Vaccine Information Statements) to the patient/caregiver for each vaccine received.
Questions? Comments?

Thank you for your attention

Call the New Hampshire Immunization Program anytime with questions

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