ADDRESSING BARRIERS TO ADULT VACCINATION

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ADULT VACCINATION
A Canadian Perspective
Addressing Barriers to Adult Vaccination: A Canadian Perspective

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Necessary components
Effective vaccination programs

• Evidence of (and belief in) burden of disease
• Evidence for (and belief in) effectiveness of vaccine
• Advocacy
  • Public health, healthcare providers, patients
• Effective delivery system
• Assessment of performance
• Accountability
Burden of disease - evidence

- Many adult vaccines prevent infections where etiology is difficult to diagnose
  - E.g. many microbes cause pneumonia

- Good evidence for burden
Vaccine effectiveness
Evidence

• Challenges with evidence
  • Prevention of non-specific versus specific outcomes
    • e.g. influenza versus influenza-like-illness; pneumococcal pneumonia versus all pneumonia
  • Variability year to year in influenza vaccine effectiveness
  • Uncertainties about duration of protection with new vaccines

• Nonetheless
  • Good evidence that recommended vaccines are a benefit to adults
<table>
<thead>
<tr>
<th>Vaccine/group</th>
<th>Percent vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza vaccine, 65+</td>
<td>67%</td>
</tr>
<tr>
<td>Influenza vaccine, adult 18-64 years with chronic conditions</td>
<td>44%</td>
</tr>
<tr>
<td>Influenza vaccine, pregnant women</td>
<td>10%</td>
</tr>
<tr>
<td>Pneumonia vaccine, 65+</td>
<td>37%</td>
</tr>
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<td>Pneumonia vaccine, adults 18-64 years with chronic condition</td>
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<td>Hepatitis B vaccine, adults with liver or kidney disease</td>
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<td>HPV vaccine, women 16-24 years</td>
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<td>Pertussis vaccine, pregnant women</td>
<td>8%</td>
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Burden of disease
Belief

• We are frightened by things that:
  • Are new, unusual or foreign
  • Have a high case fatality
    • Meningitis: 95 cases; 15 deaths
      (1 in 8 people die)
    • Influenza: 350,000 cases; 2500 deaths
      (1 in 7000 people die)

• It is easier to believe in things we can identify
Vaccine effectiveness
Belief

• Challenge
  • Perception that vaccines need to be 100% (or nearly 100%) effective
“____________ doesn’t work well enough to warrant me getting vaccinated/recommending vaccination to my patients”

- Statins reduce your risk of a heart attack, or of dying from coronary artery disease by 28%
- Lowering blood pressure reduces risk of MI by 20%-25%, and of stroke by 35%-40%
- Blood thinners for atrial fibrillation reduce the risk of stroke by 50-60%
- Bisphosphonates reduce the risk of osteoporotic hip fractures by 40-50%
Vaccine effectiveness
Belief

• Challenge
  • Perception that vaccines need to be 100% (or nearly 100%) effective

• Getting past the double standard
  • Re-framing in communication and education
Advocacy

- Prevention is always a hard sell
  - Success is invisible, non-dramatic, not personal
  - Rewards are delayed
  - Benefits to not accrue to the payer
  - Healthcare providers prefer to make sins of omission rather than sins of commission

- Thus
- Strong, vocal, persistent advocates for prevention are always essential
Effective delivery system

• Simple
• Clear
• Reliable
• Stable
• Well-known
• Minimal resources (time, money, though) required from all participants
  • Vaccine delivery staff
  • Health care providers
  • General population
# Ontario pediatric immunization schedule

<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccines to be given</th>
<th>Route for Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 months</td>
<td>DTaP-IPV-HIB (Pediacl)</td>
<td>IM – vastus lateralis (leg)</td>
</tr>
<tr>
<td></td>
<td>Pneumococcal Conjugate 13 (Prevnar-13)</td>
<td>IM – vastus lateralis (leg)</td>
</tr>
<tr>
<td></td>
<td>Rot-1 (Rotarix) OR Rot-5 (RotaTeq)*</td>
<td>Oral</td>
</tr>
<tr>
<td>4 months</td>
<td>DTaP-IPV-HIB (Pediacl)</td>
<td>IM – vastus lateralis (leg)</td>
</tr>
<tr>
<td></td>
<td>Pneumococcal Conjugate 13 (Prevnar-13)</td>
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</tr>
<tr>
<td></td>
<td>Rot-1 (Rotarix) OR Rot-5 (RotaTeq)*</td>
<td>Oral</td>
</tr>
<tr>
<td>6 months</td>
<td>DTaP-IPV-HIB (Pediacl)</td>
<td>IM – vastus lateralis (leg)</td>
</tr>
<tr>
<td></td>
<td>Rot-5 (RotaTeq) only – Rotarix does not require a dose at this age*</td>
<td>Oral</td>
</tr>
<tr>
<td>12 months</td>
<td>MMR (MMRII, Priorix)**</td>
<td>SC – upper outer tricep area</td>
</tr>
<tr>
<td></td>
<td>Meningococcal Conjugate C (Neis-Vac-C, Menjugate)**</td>
<td>IM – deltoid</td>
</tr>
<tr>
<td></td>
<td>Pneumococcal Conjugate 13 (Prevnar-13)</td>
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<tr>
<td>15 months</td>
<td>Varicella (Varivax III, Varilrix)**</td>
<td>SC – upper outer tricep area</td>
</tr>
<tr>
<td>18 months</td>
<td>DTaP-IPV-HIB (Pediacl)</td>
<td>IM - deltoid</td>
</tr>
<tr>
<td>4-6 years</td>
<td>MMRV (Priorix-Tetra, ProQuad)**</td>
<td>SC – upper outer tricep area</td>
</tr>
<tr>
<td></td>
<td>Tdap-IPV (Adacel-Polio, Boostrix-Polio)****</td>
<td>IM - deltoid</td>
</tr>
<tr>
<td>11-12 years</td>
<td>Hepatitis B (Engerix, Recombivax) (1.0 ml dose)</td>
<td>IM - deltoid (2 doses, 6 months apart)</td>
</tr>
<tr>
<td>(given in school in Grade 7)</td>
<td>HPV-9 (Gardasil 9)</td>
<td>IM - deltoid (2 doses, 6 months apart)</td>
</tr>
<tr>
<td></td>
<td>Meningococcal Conjugate ACYW-135 (Menactra)</td>
<td>IM - deltoid</td>
</tr>
<tr>
<td>10 years after Tdap-IPV</td>
<td>Tdap (Adacel, Boostrix)</td>
<td>IM – deltoid</td>
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Adult vaccination
Zoster vaccine

• Canadian recommendation
  • RZV for adults 50 years of age and over
  • RZV may be considered for immunocompromised adults ≥50 years of age based on a case-by-case assessment of the benefits vs risks.

• Ontario
  • LZV recommended for adults over the age of 65 years
  • LZV provided free (supply in family physician office) for adults aged 65-70 years
Adult vaccination
Influenza vaccine, 2018/19

• Influenza vaccine supplied in family physician offices and by pharmacies

• High-dose influenza vaccine recommended for older adults
  • Pharmacies not permitted to administer high-dose vaccine
Creating an effective system

• Paying for vaccines
  • Mitigating public health budget impact
  • Removing the double standard compared to drugs
  • Creating guidance for decision making

• System design – requires:
  • A deliberate plan, assignment of resources, continuous assessment of progress and revision
  • Scoping for what changes are already happening
    • E.g. moving away from annual physical exams to periodic preventive health visits
  • Careful thought about the full range of possibilities
Assessment of performance
Accountability
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<td>Herpes zoster vaccine, 65+</td>
<td>??</td>
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What about the short term?

- **Individuals**
  - Talk about vaccines; amplify public health messages
  - Remind your family, friends to get vaccinated

- **Health care providers:**
  - Active call to vaccination
  - Reminder to those who do not apply for vaccination
  - Evaluation of immunization activities
  - Feedback for healthcare workers

Among the actions with evidence of efficacy, the following are recommended in order to increase vaccination coverage.
Ottawa family health team
Improving access to vaccines

- EMR searches for patients missing vaccination
  - Notification of patients by phone/email
  - Vaccination reminders present in charts
  - Vaccination reviewed at every patient visit
- Stocking of some vaccines for patient purchase
- Providing information and DIN numbers, so patients can find out if their insurance covers particular vaccines
- Promotion
  - posters and pamphlets in waiting room; information on website
  - social media posts
- Medical directive for patients with vaccine prescription
- Storage of second dose
Question and Answer Period

Please use the Q&A feature at the bottom of your screen.
Pre-Conference Summit | 31 October 2020

Informing the global agenda for a life course approach to adult vaccination through a one-day Vaccines4Life Summit with a focus on:

• Understanding the public impact of vaccine preventable diseases
• Inspiring change through examples of good practice from around the world
• Galvanising action through targeted communication strategies

Register for the conference at ifa2020.org