Improving Immunization Rates in Your Clinic

April 15, 2016
Acknowledgements

• University Health System
• University of Texas Health Science Center-Houston School of Nursing
Nursing Continuing Education

• Conflict of Interest
  – The planning committee and speaker have no conflicts of interest to disclose.

• Requirements for Successful Completion
  – Attend the entire meeting
  – Turn in a completed CE evaluation
Housekeeping Items

• Silence your cell phones

• Please fill out:
  – Pre-test (Blue)
  – Event evaluation (Green – side 1)
  – Post-test (Purple - side 2)
  – CE course evaluation (Purple)

• Hold all questions until the end
Past and Present Trends in Vaccine Refusal

Rekha Lakshmanan, MHA
Objectives

• Discuss past and current trends in vaccine refusal among patients and caregivers
• Practice effective risk communication to address patient and/or parent/caregiver concerns regarding vaccination
Vaccinerd Trivia

• When you see 😊, there will be a trivia question.
• If you know the answer, please raise your hand.
• If you answer correctly, you get a prize!
2015 Measles Cases in the U.S.
January 1 to April 17, 2015

Measles Cases and Outbreaks
January 1 to April 17, 2015*

162 Cases
4 Outbreaks representing 50% of reported cases this year

*Provisional data reported to CDC's National Center for Immunization and Respiratory Diseases
Percentage of Children Enrolled in Kindergarten Who Have Been Exempted From Receiving One or More Vaccines

Estimated percentage of children enrolled in kindergarten who have been exempted from receiving one or more vaccines* and with <90% coverage with 2 doses of measles, mumps, and rubella (MMR) vaccine — United States, 2013–14 school year
A little history ...
“We’ll turn into cows!”

• Opponents to vaccination have been around as long as vaccines have.
• In Britain in 1853, vaccination against smallpox was required for all small children.
• This was met with resistance.

Source: http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit
Vaccination Mandates

• Throughout the 19th century, that anti-vaccine sentiment made its way to the U.S.
• Smallpox outbreaks spurred vaccination mandates as well as anti-vaccine groups.
• Jacobson vs. Massachusetts, 1905
  – Ruled that the state could mandate vaccination in order to protect the public from communicable disease.

Source: http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit
DPT/Brain Damage Scare

• DPT: Vaccine Roulette
  – Aired on April 19, 1982
  – Asserted that the Diphtheria, Tetanus and Pertussis (DTP) vaccine caused brain damage.
  – Thousands of parents decided not to vaccinate against whooping cough.

Source: http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit
MMR vs. Autism

- Andrew Wakefield’s Study
  - Asserted that the MMR vaccine caused autism.
  - Media seized on the article.
  - Led to a decrease in vaccination against MMR.

Source: http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit
“Green our Vaccines”

- “Green our Vaccines”
  - Movement to remove “toxins” from vaccines.
  - Purports vaccine ingredients are harmful.

Source: http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit
“Green our Vaccines”

- **Mercury**
  - Ethyl mercury vs. methyl mercury
- **Aluminum**
  - 3rd most abundant element on the planet
- **Formaldehyde**
  - Natural byproduct of metabolism

Source: [http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit](http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit)
“I’m not anti-vaccine. I want safe vaccines.”

-Robert DeNiro
“Too Many, Too Soon” & Alternative Schedules

- Belief that too many vaccines can “overload” the immune system.
- Dr. Bob Sears proposed an alternative schedule in his book *The Vaccine Book*. 

Source: [http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit](http://www.historyofvaccines.org/content/articles/history-anti-vaccination-movements; Deadly Choices by Dr. Paul Offit)
"To be perfectly clear, there is no ‘alternative’ immunization schedule. Delaying vaccines only leaves a child at risk of disease for a longer period of time ... it does not make vaccinating safer. There is no alternative if you want the optimal protection for your child."

- Sandra G. Hassink, MD, FAAP, President of the American Academy of Pediatrics

Source: “An Important Immunization Message from the President of the AAP,” healthychildren.org
“More harm than good”

Opponents to vaccination often make claims based on misinformation, or a misunderstanding of the biochemistry and context of vaccine ingredients.

Scientific consensus DOES NOT support them.
“More harm than good”
Why are we still talking about this?

- Passion and conviction
- Distrust of industry
- Controversy bias in Media
- “University of Google”
- Perception of legitimacy:
  - National Vaccine Information Center
  - Sympathetic doctors/nurses
- Word of mouth
Why are we still talking about this?

• But also ...
  – “Science” speak
  – Lack of emotional appeal when talking about vaccines
  – Dismissal of vaccine-refusers
  – Fear of conflict
  – Limited time with patients
Vaccine Hesitancy Spectrum

“Anti-Vaccine”
Vaccine Hesitancy Spectrum

“Pro-Vaccine”
Vaccine Hesitancy Spectrum
Summary

• Vaccine opposition has been around for as long as vaccines have.
• Competing voices can confuse or misguide patients and parents.
• **Science is on your side.** Vaccines are safe and effective.
Utilizing Evidence-based Interventions to Improve Immunization Rates in Clinical Settings

Robyn Correll Carlyle, MPH
Take a Beat
Objectives

• Practice effective risk communication to address patient and/or parent/caregiver concerns regarding vaccination

• Utilize evidence-based strategies to increase vaccination in clinical settings
The Toolbox
What do you do when you encounter a patient/parent with questions or doubts?
CASE Method

- Developed by the Autism Science Foundation
- Helps those working with vaccine-hesitant patients and caregivers to address any questions or concerns
- Is a framework to guide the conversation
CASE Method

• Corroborate
  Acknowledge the parents’ concern and find some point on which you can agree. Set the tone for a respectful, successful talk.

• About Me
  Describe what you have done to build your knowledge base and expertise.

• Science
  Describe what the science says.

• Explain/Advise
  Give your advice, based on the science.

Corroborate

“I heard there’s mercury in vaccines. I don’t want to inject that into my child.”

• **What do you have in common?**
  – “I can understand why you feel that way. When I first heard there was mercury in vaccines, I was shocked and worried, too.”
About Me

“I heard there’s mercury in vaccines. I don’t want to inject that into my child.”

• What have you done to educate yourself on the topic?
  – “I did some investigating to get to the bottom of why vaccines contained mercury. I read different resources and studied the biochemistry behind it.”
“I heard there’s mercury in vaccines. I don’t want to inject that into my child.”

• **What does the science say?**
  – “And what I learned is that there are actually two different kinds of mercury: ethylmercury and methylmercury. They sound similar, but to the human body, they are very, very different. The type of mercury found in vaccines is much, much easier for the body to process.”
“I heard there’s mercury in vaccines. I don’t want to inject that into my child.”

• **What is your recommendation based on science?**

  “Given that the kind of mercury found in vaccines is not, in fact, harmful, not vaccinating would be a much greater risk for your child, as they could contract a serious – and possibly deadly or debilitating disease. I decided to vaccinate my children, and I want your child to be protected, too.”

Remember

• Be compassionate.
• Share *your* story.
• Keep it simple.
• **Be confident in your recommendation.**
How do you get patients into the clinic in the first place? And once they’re there, how do you make sure they’re vaccinated?
The Community Guide in Action

One organization increased cancer screening rates and the other increased physical activity—both with Task Force findings. Read each story to learn more about their success.

1 2 3 4

Task Force

2016 Meetings
February 24
June 22–23
October 26–27

Annual Reports to Congress

Get Email Updates
Submit your email address to get updates on The Community Guide topics of interest.

What’s this?

Check out the new The Community Guide in BETA now!
The Community Guide

• Systematic Review Methods
  – Identify relevant studies
  – Assess quality
  – Summarize the evidence
Recommended Interventions

- Reminder/Recall programs
- Immunization information systems (registries)
- Provider assessment and feedback
- Provider reminders
- Standing Orders
- Healthcare System-based interventions implemented in combination
Reminder/Recall

- Identify and contact patients who have upcoming vaccine doses (reminder) or have missed doses (recall)

- *Why it’s great:* Doesn’t rely on patients being in the clinic already
Resources

- EHR
- ImmTrac
- Services like Well Connect or Televox
- Pfizer’s Postcard Program
  - Pre-paid postcards
Tips for Success

• Use “Tickler files”
  – Ask parents to fill out reminder post cards for subsequent doses before leaving a clinic visit

• Conduct recall in “batches”

Are you already doing this with chronic care management or well child visits?

How could you incorporate reminder/recall into your clinical practice?
Standing Orders

- Gives non-physician healthcare personnel (ex. physician assistants, nurses and medical assistants) directive to administer vaccines without a prescription to eligible patients

- **Why it’s great:** Allows more flexibility and opportunity to administer vaccines
Three Phases of Standing Orders Implementation

- **Phase 1:** Build Support of Leadership
- **Phase 2:** Develop Materials and Strategies
- **Phase 3:** Make It Happen
Standing Orders for all routine vaccines are available on the IAC website

www.immunize.org/standing-orders
Tips for Success

• TIPS:
  – Buy-in from provider is critical; it’s important that they enforce the standing orders
  – But so is buy-in from front-line staff
  – Use in conjunction with reminder/recall and/or vaccine-only visits to increase effectiveness

Who would you need buy-in from to implement standing orders in your clinic?

How would you train and enforce the process with clinic staff?
Provider Reminders

• Alerts providers that a patient is in need of a vaccine dose

• *Why it’s great:* Helps to reduce missed opportunities
Reduce missed opportunities by making *every* visit a vaccination visit!
Opportunities for Assessment

Patient checks in

Nurse/MA takes vitals, examines chart

Provider/Nurse/MA gives patient instructions on next steps

Front Desk

Vitals/Triage

Instructions

Exam

Provider’s Exam

Patient checks out
Types of Reminders

• Alert in the Electronic Health Record System
• Stickers on the front of the patient chart
• Post-its inside the chart on the shot record
Tips for Success

• TIPS:
  – Review patients’ charts for the next day and flag those that need vaccines
  – Best Practice Alerts
  – Can be simple: place a colored dot sticker on the front of the chart to indicate to the provider that a vaccine is needed

How do you see this process working for your clinic?
Immunization Information Systems

• Texas uses ImmTrac, a statewide immunization registry

• **Why it’s great:** Can fill in the gaps of immunization history by desegregating vaccination records
# Forecasting with ImmTrac

## Next Recommended Immunizations

(Click [here](http://example.com) for additional information about the new vaccination scheduler.)

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Dose</th>
<th>Earliest Date*</th>
<th>Recommended Date</th>
<th>Overdue Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP/DT/Td/Tdap</td>
<td>5</td>
<td>03/06/2013</td>
<td>03/06/2013</td>
<td>04/06/2015</td>
</tr>
<tr>
<td>HepA</td>
<td>1</td>
<td>03/06/2003</td>
<td>03/06/2003</td>
<td>03/06/2004</td>
</tr>
<tr>
<td>HepB 3-Dose</td>
<td>2</td>
<td>01/02/2006</td>
<td>01/02/2006</td>
<td>03/29/2006</td>
</tr>
<tr>
<td>HPV</td>
<td>1</td>
<td>03/06/2011</td>
<td>03/06/2013</td>
<td>03/06/2015</td>
</tr>
<tr>
<td>Influenza</td>
<td>1</td>
<td>09/06/2002</td>
<td>09/06/2002</td>
<td>10/06/2002</td>
</tr>
<tr>
<td>Meningococcal</td>
<td>1</td>
<td>03/06/2013</td>
<td>03/06/2013</td>
<td>03/06/2015</td>
</tr>
<tr>
<td>MMR</td>
<td>1</td>
<td>03/06/2003</td>
<td>03/06/2003</td>
<td>07/06/2003</td>
</tr>
<tr>
<td>Polio</td>
<td>1</td>
<td>04/17/2002</td>
<td>05/06/2002</td>
<td>06/06/2002</td>
</tr>
<tr>
<td>Varicella</td>
<td>1</td>
<td>03/06/2003</td>
<td>03/06/2003</td>
<td>07/06/2003</td>
</tr>
</tbody>
</table>

*Minimum intervals specified for combination vaccines may differ.*

Source: ImmTrac User Instructional Manual
Tips for Success

• **TIPS:**
  – Reference shot records for patients daily or in small batches so that you don’t fall behind

*How do you see your clinic using ImmTrac?*
Provider Assessment and Feedback

- Alerts providers of how they are doing and what they can do better

- **Why it’s great:** Identifies gaps so that they can be addressed
Assessment

• If on EHR, ask clinic staff member in charge of reporting if they can determine vaccination rates for certain age groups.
  – If rates can’t be determined, print immunization records for that age group and use the CoCASA software

• If on paper charts, identify relevant charts and screen them for vaccination status.
  – To determine vaccination rates, use the CoCASA software
Assessment

• Next step: What could be done better to improve vaccination rates?
  – CDC’s AFIX Site Visit Questionnaire
    http://www.cdc.gov/vaccines/programs/afix/site-visit-questionnaire.html
  – Immunization Action Coalition’s Suggestions to Improve Your Immunization Services
Reporting

• Once the assessment is conducted, share the results with all levels of clinic staff, for example via:
  – Staff meetings
  – In-clinic memos
Tips for Success

• TIPS:
  – Conduct as part of routine assessments already scheduled, such as reports to Medicaid

At what point(s) do you think it would work best for your clinic to do assessment? What about giving feedback?
Interventions Used in Combination

• Uses 2+ interventions in a healthcare setting

• Why it’s great: Can be more effective than any one intervention used alone
Using EBI in Combination

• At least one intervention to increase client demand for vaccinations, such as:
  – Client reminder and recall systems
  – Clinic-based client education
  – Manual outreach and tracking

• And one or more interventions that address either, or both, of the following strategies:
  – Interventions to enhance access to vaccinations:
    • Expanded access in health care settings
    • Reduced client out-of-pocket costs
    • Home visits
  – Interventions directed at vaccination providers or systems:
    • Provider reminders
    • Standing orders
    • Provider assessment and feedback
Interventions Used in Combination

- **TIPS:**
  - Leadership buy in and staff training is critical
  - Identify overlap with existing protocols to ease transition (ex. Well-Child Visits)
  - Quality > quantity
Additional Resources

• The Community Guide:
  – http://www.thecommunityguide.org/vaccines/index.html

• Immunization Action Coalition:
  – www.immunize.org
  – StandingOrders.org

• ImmTrac
  – 800-252-9152
  – ImmTrac@dshs.state.tx.us
Thank you!

Robyn Correll Carlyle, MPH
Education Program Manager
rcarlyle@immunizeUSA.org
(281) 400-3689
Next Steps

• Please fill out:
  – Event evaluation (Green – side 1)
  – Post-test (Purple - side 2)
  – CE course evaluation (Purple)

• May 10th – Stakeholder Meeting

• Fill out our Statewide Survey and you could win $100!
Thank you!