

Educate. Protect. Vaccinate

Addressing Parents' Concerns about Childhood Vaccines

Deborah Van Dyk
Regional CDC Coordinator
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Presentation Outline

- Introduction of new resource
- Common concerns about immunization
- Common vaccine misinformation
- Putting immunization in context
- Strategy for discussing immunization concerns with parents
- Available resources

★ New Immunization Support Line ★

New Resource for Nurses



Common Concerns about Immunization

- Possibility of adverse events
- Multiple antigens
- Multiple injections
- Vaccines may contain harmful additives

Common Concerns about Immunization

Possibility of adverse events

- Assessing attributable risk
- Influence of anti-immunization campaigns and media on risk perceptions

Common Concerns about Immunization

Multiple antigens/Multiple injections

- Multiple antigens will overwhelm the immune system
 - We are exposed to millions of organisms every day
 - Infants have the capacity to respond to 10,000 antigens at a time.
- Multiple injections in one visit is traumatic to the immune system and to the child
 - A person can receive as many vaccines in a visit as sites available if needed
 - Return visits are often more traumatic for parent and child than multiple injections in one visit

Common Concerns about Immunization

Vaccines may contain harmful additives

- Formaldehyde
 - ▶ Used to inactivate viruses in some vaccine
 - ▶ Purification leaves only minimal trace
 - ▶ The body produces formaldehyde naturally in significantly greater amounts
- Aluminum
 - ▶ Adjuvant to increase immune response to vaccine
 - ▶ Abundant in nature, found in air, food and water
 - ▶ Also found in breast milk and infant formula
- Mercury (Thimerosal)
 - ▶ Used as preservative in multidose vials of vaccine
 - ▶ Not used in infant vaccines (except flu)
 - ▶ Many studies indicate no link between trace amount of thimerosal in vaccine and neurological disease

Common Vaccine Misinformation

- MMR causes autism
- Immunizations are unnecessary in modern times
- Natural infection leads to a stronger immune system
- Vaccines are not effective at preventing disease

Common Vaccine Misinformation

MMR causes autism

- Wakefield Study
- No relationship between MMR vaccination rate and autism rate

Common Vaccine Misinformation

Immunizations are unnecessary in modern times

- Improved sanitation and better nutrition are important issues in the fight against disease but are only part of the story.
- Hib example
 - ▶ Decrease of 98.4% in hospitalizations for Hib infections after introduction of vaccine in 1992.
- With modern travel, as long as a disease is present in the world everyone is at risk for infection

Common Vaccine Misinformation

“Natural” infection leads to a stronger immune system

- Vaccine expose immune system to an antigen without the risk of disease
- The immunity created by vaccines is the same as the immunity that results from infection
- “Natural” infection is not necessary for normal immune system development

Common Vaccine Misinformation

Vaccines are not effective at preventing disease

- Sometimes vaccinated children do get infected
 - ▶ Measles Example:
 - Vaccine is 90-95% effective after one dose
 - In a school of a 1000 students where 95% of students are infected, approximately 50 students would be susceptible because they are unvaccinated and 95 students are susceptible because they did not seroconvert after one dose
 - Keep in mind that 865 students are protected!

Putting Vaccines in Context

- Measles causes encephalitis in 1 out of 1000 cases. Encephalitis following measles vaccine occurs in 1 out of 1 million vaccinations (similar to the risk of dying by lightning strike)
- Meningitis (often causing deafness) occurs in 1 in 10 cases of mumps vs 1 in 800,000 after mumps vaccination and is without sequelae
- Tetanus kills up to 1 in 5 of those infected

Gold, R. (2006). *Questions and Answers about Vaccination*. Your Child's Best Shot - A parent's guide to vaccination, 3rd edition, pg 299-346.

Strategy for discussing immunization concerns with parents

- Listen, evaluate, and categorize
- Recognize legitimate concerns
- Provide context
- Refute misinformation
- Provide valid information
- Recognize that it is the parents decision
- Educate about potential consequences
- Make a clear recommendation

Haperin, S. (2000). *How to manage parents unsure about immunization*. The Canadian Journal of CME, Jan: 62-75.

Available Resources

- Canadian Immunization Guide 7th edition (2006)
- Your Child's Best Shot - A parent's guide to vaccination by Dr. Ronald Gold
- Canadian Coalition for Immunization Awareness & Promotion - www.immunize.ca
- Public Health Agency of Canada - www.phac-aspc.gc.ca
- FNIH Ontario Immunization Protocol - Chapter 18

FNIH Ontario Immunization Support Line

The purpose of this initiative is to provide a line staffed by a nurse for nurses in the Ontario region to call or email with your questions related to immunizations.

FNIH Ontario Immunization Support Line

Some examples of how this new initiative might benefit your practice include:

- recommendations for catch-up schedules
- advice regarding precautions and contraindications for immunization
- assistance in interpreting new provincial immunization schedules
- help in addressing parents concerns about vaccines
- responses to questions about vaccine action

FNIH Ontario Immunization Support Line

1-866-297-3577

immunization-fnih-ontario@hc-sc.gc.ca

The immunization support line is available Monday to Friday, 9am to 5pm (Eastern Time) or 8am to 4pm (Central Time).