Centers for Disease Control and Prevention
National Center for Immunization and Respiratory Diseases

Immunization Resources for Undergraduate Nursing (IRUN)

AACN Baccalaureate Education Conference

Authors: Raymond Strikas, MD, MPH, Ruth Gallego RN, MPH, CHES, Jennifer Hamborsky, MPH, MCHES, JoEllen Wolicki, BSN, RN

November 22, 2019

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

This presentation was made possible through cooperative agreements between the Association for Prevention Teaching and Research (APTR) and the Centers for Disease Control and Prevention (CDC), grant number 5U360E000005-03, and the American Association of Colleges of Nursing and the CDC, grant number 6NU36OE000009-02-01.

Its contents are the responsibility of the authors and do not necessarily reflect the official views of APTR, AACN, or CDC.

Learning objectives

- Describe the IRUN Project and its goal
- List the main components of the IRUN Project
- Identify the IRUN Project's primary target audience

Overview

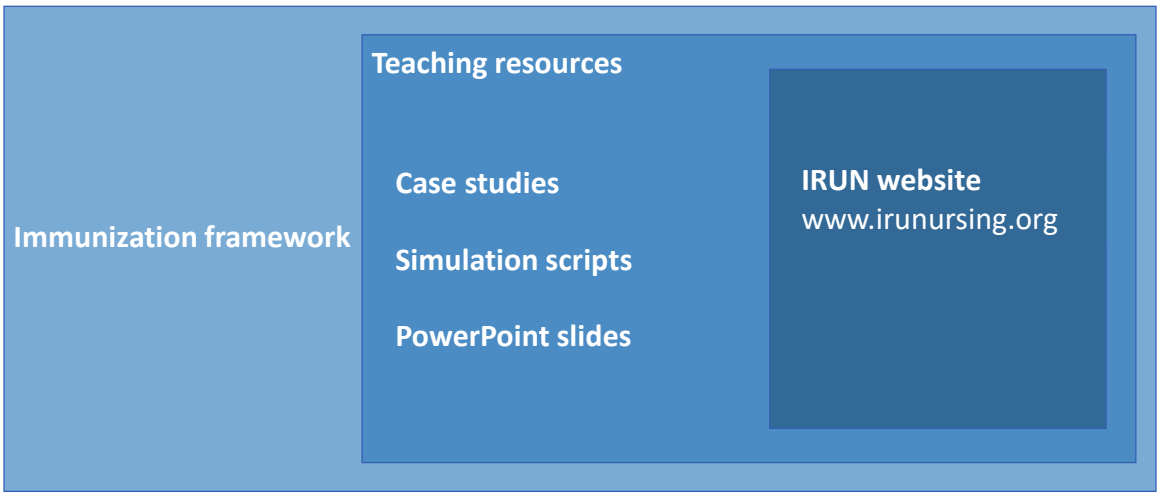
- What is IRUN?
- Why the IRUN Project?
- Who is the target audience?
- Who is involved in the project?
- How did we address the project goal?
- When and where can you access IRUN?
- How will the target audience use IRUN?

What is IRUN?

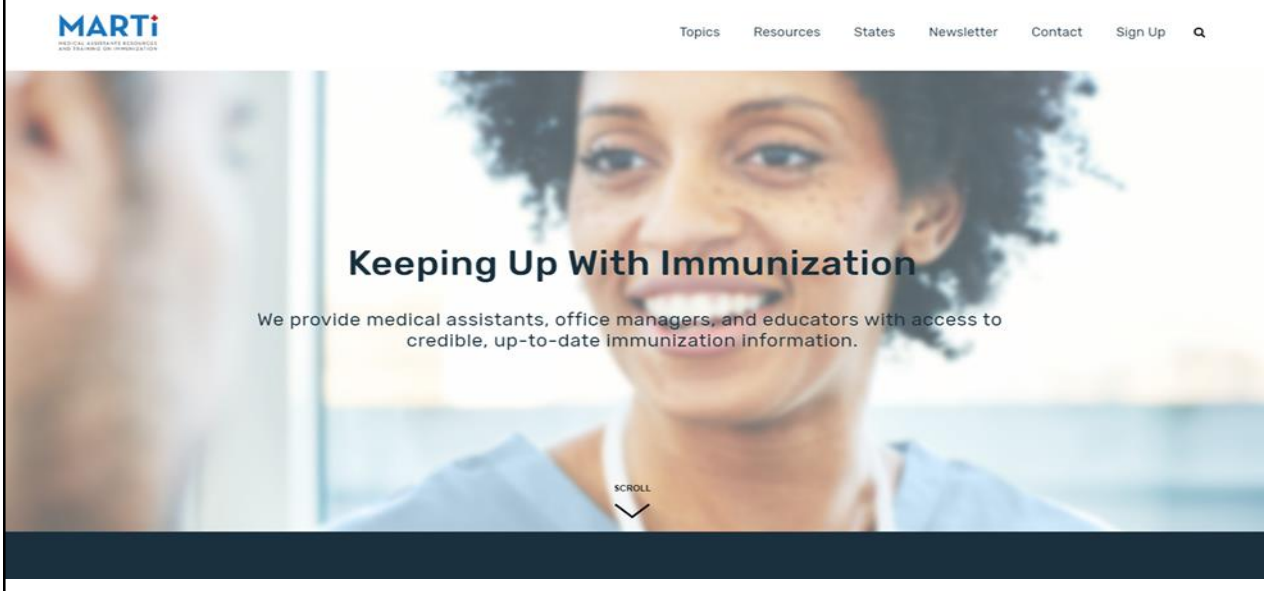
- **I**mmunization **R**esources for **U**ndergraduate **N**ursing
- Goal: Increase immunization content in undergraduate nursing curricula
- IRUN website
  - url or web address: www.irunursing.org
  - Resources website using an immunization teaching framework for navigation and organization
  - Teaching resources developed by CDC and academic institutions—case studies, simulation scripts, and PowerPoint slides

What is IRUN?

IRUN Project components



Medical Assistants Resources and Training on Immunization



http://www.marti-us.org/

Immunization Curriculum Framework: A Guide to Integrating Content in Pre-licensure Nursing Practice

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

The Immunization Curriculum provides guidance for faculty on integrating immunization content into a curriculum, with a focus on entry-level learning for the undergraduate nursing student. Nursing faculty members are encouraged to assess their existing curricula and incorporate appropriate elements of this framework. Faculty members can present the subject matter in any manner they find suitable. The framework serves as a guide to foundational topics in immunization, it does not provide instructions for teaching immunization in an academic setting.

http://www.irunursing.org/

Why the IRUN Project?

Healthy People 2020: Educational and Community-Based Programs (ECBP)

ECBP-14 Increase the inclusion of core clinical prevention and population health content in undergraduate nursing

Nurses are on the front line of patient care and responsible for providing immunization services

https://www.healthypeople.gov/2020/topics-objectives/topic/educational-and-community-based-programs/objectives

Why the IRUN Project?

Gap in up-to-date immunization resources for undergraduate nursing

University of Oklahoma College of Nursing survey*:

- 1,647 U.S. nursing programs and received 506 responses

*Nursing Initiative Promoting Immunization Training (NIP-IT) Evaluation

2010 University of Oklahoma College of Nursing Survey Results

- Nurses play key roles in immunization
  - Communication with patients, parents, caregivers, and families
  - Vaccine administration
  - Vaccine storage and handling
- Immunization is most frequently taught as a part of pediatrics curriculum, even though vaccinations are required throughout the life span
- Teaching immunization in undergraduate nursing is difficult due to content saturation

Who is the target audience?

- Undergraduate baccalaureate nursing faculty and educators

Recap

Gap in up-to-date immunization resources for undergraduate nursing

Goal: Increase immunization content in undergraduate nursing curricula

Intervention: Develop a nursing immunization resource

Target audience: Undergraduate baccalaureate nursing faculty and educators

Who is involved in the project?

- Nursing education experts
  - In 2015, CDC , APTR convened a meeting of experts in undergraduate nursing education:
    - Undergraduate nursing educators
    - Representatives of national nursing practice and educational associations
    - Nursing student representatives
- CDC interprofessional staff (physician, nurse, and health educator)
- APTR and AACN/CDC nursing fellow

CDC's history on education products for nurses

- Develops immunization education and training materials for health care providers
- More than 80% of our audience is nurses
- Developed *Teaching Immunization Practices for Nurses (TIP)*

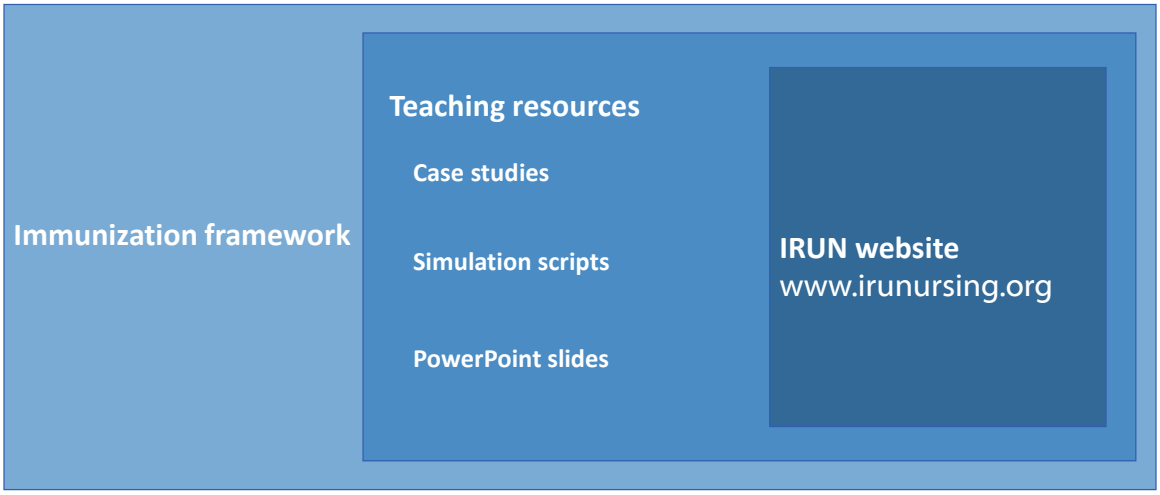
How did we address the project goal?

IRUN Goal: Increase immunization content in undergraduate nursing curricula

- Immunization education in nursing curricula lacks structure and is not consistent
- Recommendations:
  1. Develop framework for immunization education in undergraduate nursing
  2. Develop teaching resources
  3. Develop IRUN website

How did we address the project goal?

IRUN project components



Framework with objectives

Purpose:

- Provide guidance for faculty on integrating immunization content into a curriculum, with a focus on prelicensure nursing practice
- Ensure access to and consistency of current information for faculty members and students
- Prioritize information and content to be included in curricula

Use:

- Nursing faculty members will use the framework to assess their existing curricula for content gaps

Framework with objectives and resources

1. Public Health Perspective
2. Immunization Strategies
3. Immune System/Immunology
4. Vaccine-Preventable Diseases
5. Types of Vaccines
6. Immunization Schedules
7. Communications
8. Legal/Ethical Issues
9. Vaccine Storage and Handling
10. Vaccine Administration
11. Documentation
12. Vaccine Safety

V. Types of Vaccines

Learning Objectives

a. Identify types of vaccines (i.e., live, inactivated).
b. Compare types of vaccines by how they are derived.
c. Compare types of vaccines by how they produce immunity.
d. Discuss implications of the different types of vaccines (i.e., contraindications, precautions, risks, and use in special populations).
e. Identify common vaccine components that may be present in a given vaccine product (e.g., adjuvants, preservatives, stabilizers, and antibiotics).
f. Identify common public concerns about vaccine components such as formaldehyde, aluminum, and thimerosal.
g. Describe the nursing roles related to types of vaccines: communicator, educator, lifelong learner, and screener/assessor

Framework with objectives

Development process

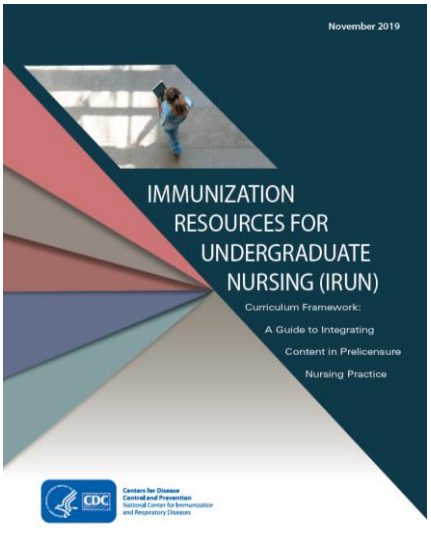
- CDC staff and nursing fellow drafted learning objectives from 4 documents
  - Immunization Competencies for Health Professionals
  - Teaching Immunization Practices for Nurses (TIP)
  - Nursing Initiative Promoting Immunization Training (NIP-IT)
  - Competencies of the Immunization Technical Workforce

Framework with objectives (2)

Development process

- CDC staff, nursing fellow, and nursing experts identified resources
- Nursing education experts reviewed and approved the immunization framework

When and where can you access IRUN?



- IRUN framework pdf version will be placed on CDC website and at www.irunursing.org
- APTR will host the html version
- Publish journal article on IRUN project
- Launch IRUN website in Fall 2020
  - APTR will host, maintain, and update the website and resources

How will the target audience use IRUN?

Undergraduate nursing faculty members and educators will:

1. Use the framework to assess their existing curricula for content gaps
2. Use resources, case studies, simulation scripts, and PowerPoint slides to address these content gaps
3. Use the IRUN website to gather and share teaching resources

Next steps

1. Publish IRUN framework journal article
2. Finalize case studies, simulation scripts, and PowerPoint slides
3. Develop IRUN website www.irunursing.org
4. Develop evaluation plan for the IRUN Project

Acknowledgements

- Nursing education experts of the IRUN project
- Allison Lewis, APTR
- Donna Page, MPH, MCHES
- Ginger Redmon, MA

Questions about the IRUN Project?
Send to NIPINFO@cdc.gov

Thank You!

For more information, contact NIPINFO
NIPINFO@cdc.gov

IRUN Case Studies

Sheryl Buckner PhD, RN, ANEF

APTR Association for Prevention Teaching and Research

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

About:

- IRUN case studies are based on CDC vaccine training materials
- reviewed and adapted upon recommendations of a sub-committee
- designed for all levels of undergraduate nursing education, beginner to advanced
- most current version of the CDC Recommended Vaccine Schedule should be used with each case, https://www.cdc.gov/vaccines/schedules/

How to use:

- flexible design
- allows for modification:
  - individual scenario may be inserted into a presentation to emphasize a teaching point
  - or an entire set may be used for a class

How to use:

- case studies that are designated as one star are for beginning students, two stars are for intermediate students, and three stars are for advanced students

Beginning Students

Intermediate Students

Advanced Students

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Divided into four parts:

- **Part 1: Patient Encounter (Pediatric)**

  Topics:
  - Vaccine Storage and Handling
  - Pain, Communication, and Site and Needle Selection
  - Simultaneous Administration
  - Educating the Parent using the VIS's
  - Vaccine Contraindications and Precautions

  These case studies are intended for a beginning (★) and/or an intermediate (★★) nursing student.

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Divided into four parts:

- **Part 2: Patient Encounter (Pediatric)—Healthy Infants, Children and Adolescents**

  Topics:

  - Using CDC Recommended Child/Adolescent Immunization Schedule
  - Assessment of Immunization History
  - Assessment of Doses as Valid or Not Valid
  - Assessment of Vaccine Doses Needed Now and Future
  - Use of Combination Vaccine
  - Addressing Parent's Concern on Vaccine Safety
  - Addressing Parent's Concern about HPV Vaccine

  These case studies are intended for a beginning () and/or an intermediate () nursing student.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Divided into four parts:

- **Part 3: Vaccine Schedule (Healthy Pregnancy, Healthy Older Adult, Health Care Personnel)**

  Topics:

  - use of CDC Recommended Adult Immunization Schedule
  - assessment of an adult immunization history
  - assessment of doses as valid or not valid
  - assessment of vaccine doses needed today and at future visits
  - vaccines needed during pregnancy
  - vaccines needed prior to discharge
  - vaccine safety during pregnancy
  - vaccines recommended for healthy older adults
  - health care personnel vaccination requirements

  These case studies are intended for an intermediate () nursing or advanced () nursing student.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Divided into four parts:

- **Part 4: Vaccine Schedule (Using the CDC Child & Adolescent Immunization Schedule, Catch-up Schedule)**

Topics:

- use of the CDC Child & Adolescent Immunization Schedule
- use of the CDC Catch-up Immunization Schedule
- assessing child's immunization history
- doses as valid or not valid
- doses needed today and future visits

These case studies are intended for an intermediate (★★) nursing student.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Let's go through a case study

Not the right way to give vaccines!☺

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1a. Vaccine Storage and Handling ★

Overview

To be effective, vaccines must be stored and handled correctly. Storage and handling errors can result in significant costs to replace expensive vaccines and revaccinate patients. Every facility should have detailed, written protocols for routine and emergency vaccine storage and handling, and those protocols should be updated annually.

Objectives

Using this case study, nursing students will:

- *Identify requirements and best practices for vaccine storage and handling.*
- *Identify when a vaccine may have been compromised.*

1a. Case Study continued

Teaching Tools

Review the following to help complete the case study:

- *Epidemiology and Prevention of Vaccine-Preventable Diseases* (the Pink Book), Chapter 5–Vaccine Storage and Handling *(Vaccine and Diluent Inventory Control)*
- *Epidemiology and Prevention of Vaccine-Preventable Diseases* (the Pink Book), Chapter 5–Vaccine Storage and Handling *(Vaccine and Diluent Placement and Labeling)*
- Vaccine Storage and Handling Toolkit *(Organizing and Storing Vaccine in Storage Unit)*
- *You Call the Shots:* Vaccine Storage and Handling module

1a. Case Study continued

Background

We Care pediatric facility has always served young children. Now the practice is adding adolescents to its patient population and is obtaining additional vaccines that adolescents need.

Current vaccine stock in the storage unit includes DTaP, Hib, PCV13, IPV, MMR, VAR, HepA, rotavirus, IIV, and HepB vaccines. The facility has placed an order for Tdap, HPV, Menveo® brand of MenACWY, and Bexsero brand of MenB. The vaccine shipment arrived today, and the vaccine coordinator immediately checked the contents and stored the vaccines properly.

Questions

- Should the hepatitis A vaccine be stored in the refrigerator? If so, should the vaccine with the latest expiration dates be placed in the front of the unit and used first?
- Should the diluent for any of these vaccines be stored with the corresponding vaccine? If so, which one(s) and why?
- Should Tdap vaccine be placed next to existing supplies of DTaP vaccine within the storage unit?
- The clinic is doing an off-site flu vaccination clinic. How do you ensure the vaccine is not compromised once it has arrived at an off-site facility?

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1a. Case Study continued

Answers to Questions

1. Should the hepatitis A vaccine be stored in the refrigerator? If so, should the vaccine with the latest expiration dates be placed in the front of the unit and used first?

- Hepatitis A vaccine should be stored in a refrigerator between 36°F and 46°F. However, vaccine with the earliest expiration dates should be stored in the front of the unit and used first.

2. Should the diluent for any of these vaccines be stored with the corresponding vaccine? If so, which one(s) and why?

- Yes, the diluent for Menveo® vaccine contains vaccine antigen and should be stored in the refrigerator with the freeze-dried component. This will ensure that there are equal quantities of vaccine and diluent available for reconstitution and administration.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1a. Case Study continued

3. Should Tdap vaccine be placed next to existing supplies of DTaP vaccine within the storage unit?

- Tdap and DTaP sound and look similar, but they have different recommendations, age indications, and schedules. To prevent vaccine administration errors, it is recommended that they not be stored next to each other on the same shelf.

1a. Case Study continued

4. The clinic is doing an off-site flu vaccination clinic. How do you ensure the vaccine is not compromised once it has arrived at an off-site facility?

- Immediately upon arrival at an off-site facility, vaccines should be stored in an appropriate vaccine storage unit (e.g., a pharmaceutical-grade refrigerator) with a temperature monitoring device (e.g., a digital data logger) placed with the vaccines.
- If vaccines cannot be stored in an on-site vaccine storage unit, they should be kept in the portable vaccine refrigerator or qualified container and packout used for transport. During an off-site clinic, nurses should:
  - Keep the container(s) closed as much as possible.
  - Remove only 1 multidose vial or 10 doses at a time for preparation and administration by each nurse.
  - Place the calibrated temperature monitoring device (preferably a digital data logger with a buffered probe) as close as possible to the vaccines.
  - Read and document the temperature(s) inside the container(s) at least hourly.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING
APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1b. Pain, Communication, Site & Needle Selection

Overview

The pain and anxiety associated with vaccination can increase fear among patients, leading to avoidance of future medical procedures and lack of adherence to immunization schedules. However, there are strategies health care providers can use to reduce procedural pain and fear of injections. In addition, providers should encourage parents and guardians to take an active role before, during, and after the administration of vaccines.

Objectives

- *Using this case study, nursing students will:*
- *Identify techniques to reduce procedural pain and fear of injections associated with immunization.*
- *Practice communication with caregivers during vaccine administration.*
- *Identify age-appropriate sites for vaccine administration.*
- *Identify correct needle length and gauge for intramuscular (IM) injections.*

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1b. Case Study continued

Teaching Tools

Review the following to help complete the case study:

- *Epidemiology and Prevention of Vaccine-Preventable Diseases* (the Pink Book), Chapter 6–Vaccine Administration (Patient Care during Vaccine Administration)
- General Best Practice Guidelines for Immunization: Best Practices Guidance of the Advisory Committee on Immunization Practices, Table 6–1: Dose and Route of Administration for Selected Vaccines
- General Best Practice Guidelines for Immunization: Best Practices Guidance of the Advisory Committee on Immunization Practices, Table 6–2: Needle Length and Injection Site of IM Injections for Children Aged ≤18 Years (by Age) and Adults Aged ≥19 Years (by Sex and Weight)
- Vaccine Administration e-Learn
- How to Hold Your Child during Vaccinations
- Tips for a Less Stressful Shot Visit

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1b. Case Study continued

Background

Trinity is 5 years old and has no known medical conditions. She is in the office in July for a well-child visit before school entry. She is on schedule with her vaccinations and is due for her DTaP, MMR, VAR, and IPV doses. Trinity is very upset since she knows she may get several injections today. Her mother is concerned about how to comfort her.

Questions

- What are some ways you can decrease Trinity's pain and help with her fear?
- What advice will you give Trinity's mother to help Trinity with vaccine administration?
- What are the age-appropriate sites for administering the vaccines she needs today and what needle size will you select? Complete the information on the chart below (see example for DTaP). Refer to the General Guidelines, Table 6–1 and Table 6–2.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1b. Case Study continued

1. What are some ways you can decrease Trinity's pain and help with her fear?

- Talk to her:
  - Children need to feel they can trust the health care provider. You can gain Trinity's trust by:
    - Establishing eye contact and talking calmly to her
    - Answering any questions she might have
    - Explaining in simple terms the reasons for the vaccines
    - Being honest about any potential pain (since many children have been bitten by mosquitoes, it might be helpful to compare the injection pain to a mosquito bite)
- Ask her to help control the pain herself:
  - Ask her to rub the site before the injection.
  - Have her hold her breath and then blow out when she receives the injection.
  - Ask her to sing a song or tell a story.
  - A parent or caregiver can also help with these techniques.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1b. Case Study continued

Make the process as quick and efficient as possible

- Have all vaccines ready to give before seeing the child. Preparing the medication in front of the child can add to her stress.
- Have the child sit up rather than lie down.
- Have a plan about which injection will go where and in what order (since some vaccines are more painful than others). Administering the most painful vaccines at the end can decrease pain.
- Use combination vaccines if possible. Trinity could receive MMRV and DTaP-IPV, resulting in only two rather than four injections.
- When multiple injections are required, make sure they are given in different sites in rapid succession. If administration is slow, the child will experience more stress and pain.
- Do not aspirate before injection. Although aspiration is advocated by some experts and most nurses are taught to aspirate before injection, there is no evidence that this procedure is necessary for vaccine administration.
- Pain can also be decreased with the use of topical analgesics per manufacturer's guidelines.

1b. Case Study continued

2. What advice will you give Trinity's mother to help Trinity with vaccine administration?

Before the injection(s)

Make sure you have allowed enough time to answer any questions the caregiver might have, including information about after-care. It is important to assess how much information the caregiver requires and at what educational level that information should be. Since the health care provider's views on vaccines are an important factor in motivating parents to vaccinate, sending a clear message to the caregiver that vaccines are recommended and needed is an essential communication step.

Provide the parent information about potential problems that can occur after vaccination (such as fever greater than 100.4°F or a swollen, hot, and red area that does not go away after 24 hours). Make sure the caregiver understands what to do in such situations.

1b. Case Study continued

During the injection(s)

During the injection(s), the parent should take an active role. The parent or caregiver can:

- Hold the child in a seated position. Holding the child before and during the injection may provide some comfort for both the parent and child. Children do better with vaccine administration when they are sitting.
- Help distract the child during the process (e.g., with a toy, book, or song).
- Make sure all limbs involved in vaccine administration are exposed and free from clothing so that the health care provider can give the injections quickly.

After the injection(s)

After the injection(s), the parent can:

- Support the child if they are crying.
- Provide non-aspirin pain relievers for any muscle pain related to the injections.
- Apply cool washcloths over the sore areas for 5–10 minutes at a time.
- Encourage the child to move the limbs that are affected. This will help the medication absorb and decrease the pain.

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

1b. Case Study continued

3. What are the age-appropriate sites for administering the vaccines she needs today and what needle size will you select? Complete the information on the chart below (see example for DTaP). Refer to the General Guidelines, Table 6–1 and Table 6–2.

Vaccine	Route	Age-Appropriate Sites	Needle Size	Sample Plan
DTaP	IM*	Deltoid or	5/8"*–1"	IM in the L deltoid
		Anterolateral thigh muscle	1"–1.25"	
IPV	IM* or	Deltoid or	5/8"–1"	IM in the R deltoid
		Anterolateral thigh muscle	1"–1.25"	
	SubCut	Fatty tissue of triceps or Fatty tissue of anterolateral thigh	5/8"	
MMR	SubCut	Fatty tissue of triceps or Fatty tissue of anterolateral thigh	5/8"	
VAR	SubCut	Fatty tissue of triceps or Fatty tissue of anterolateral thigh	5/8"	
MMRV	SubCut	Fatty tissue of triceps or Fatty tissue of anterolateral thigh	5/8"	Subcut in the R tricep

*If skin is stretched tightly and subcutaneous tissues are not bunched

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

IRUN Simulations

Stacie Hunsaker MSN, RN, CEN, CPEN, CNE, CNML

APTR Association for Prevention Teaching and Research IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

About:

- IRUN simulations are based on CDC vaccine training materials
- Two of the three simulations are based on the case studies
- Simulations include:
  - One infant
  - One adolescent
  - One adult
- Reviewed and adapted upon recommendations of a sub-committee
- Designed for all levels of undergraduate nursing education, beginner to advanced
- May be used for interdisciplinary simulation
- Most current version of the CDC Recommended Vaccine Schedule should be used with each case, https://www.cdc.gov/vaccines/schedules/

Simulation Education is:

A ***methodology*** for learning in which trainees are:

- Immersed in a realistic scenario
- Expected to think, talk and <u>DO</u>
- Challenged to go beyond their comfort level
- Not punished for mistakes….encouraged to learn from them
- Provided the opportunity to reflect on their performance in debriefings following scenario

"Mistakes are puzzles to be solved not crimes to be punished."

~Rudolph, Ramer, & Simon, 2014

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Simulation User's Guide:

- These simulations may be used independently, or they may be added to existing simulations to complement the user's existing curriculum. They are intended to be comprehensive enough to use in a classroom role-play or as a stand-alone lab simulation. Each scenario includes objectives; a pre-briefing guide with questions; a detailed script and outline; a debriefing guide with talking points; pre-simulation teaching tools and references. The simulation scenarios were developed to promote clinical decision-making and enhance communication skills. Simulation centers have various theories and methods for the management of simulation. These scenarios were created to be flexible and fit within a variety of settings and simulation plans.

Note: It is best practice that simulation scenarios be led by trained faculty facilitators. Formal simulation facilitator training is recommended to ensure quality simulation-based curriculum (Jeffries, P.R. et al., 2015). Debriefing should be conducted by someone who observed the simulation and is based on the objectives of the scenario (Decker et al., 2013; Dreifuerst & Decker, 2012).

IRUN IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Types of Simulation

"Simulation is a technique, not a technology, to replace or amplify real experiences with guided experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion."

-Gaba, 2004

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

Immunization Education Simulations

- All simulations include:
  - A pre-briefing guide
  - Pre-simulation assignments
  - Pre-brief sample questions
  - Simulation scenario with progressing states
  - A debriefing guide
  - Debriefing (simulation-specific) talking points
  - Resources for faculty and students

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Infant Pilot Simulation

Appropriate communication and education with caregiver/answer difficult questions

Aseptic preparation, administration practice, infant positioning techniques

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Adolescent Pilot Simulation

Educate adolescent and parent about the safety and reasons for recommended immunizations

Recognize the importance of family-centered care and appropriate communication

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

Adult Pilot Simulation

The concepts of immunization education, preparation, administration, and challenging discussions regarding the influenza vaccine were added into an existing adult high-fidelity simulation.

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

Advantages of Simulation for Healthcare Education

A student is "lucky" to see the right cases before graduation, rather than "required" to see it in a simulator--and the breadth of his or her education inherently depends on the variable inflow of teaching cases.

In medical education, we've never had the opportunity to teach and learn in a realistic, risk-free environment.

- James A. Gordon, MD, MPA

IRUN
IMMUNIZATION RESOURCES for UNDERGRADUATE NURSING

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH

http://www.spaceandmotion.com/Images/philosophy/confucius-picture.jpg

"Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand."
~ Confucius, 450 B.C.

References

- Center for Medical Simulation Website. (2018). https://harvardmedsim.org/
- Dreifurst, K.T. & Decker, S.I. (2012). Debriefing: an essential component for learning in simulation pedagogy. In: *Jeffries, P.R. and National League for Nursing, Eds., Simulation in Nursing Education: From conceptualization to evaluation.* 2nd ed. National League for Nursing, New York, 105-130.
- Dufresne, R.L., Raemer, D.B, Rudolph, J.W., & Simon, R. (2006). There's No Such Thing as "Nonjudgmental" Debriefing. *Simulation in Healthcare.* 1(1), 49-55.
- Fanning, R.M., & Gaba, D.M. (2007). The Role of Debriefing in Simulation-Based Learning. *Society for Simulation in Healthcare.* 2(2) 115-125.
- Henry, J., Judy, S. J., Marine, R., Murray, W., & Polomano, R. (2007). Team Management Training Using Crisis Resource Management Results in Perceived Benefits by Healthcare Workers. *The Journal of Continuing Education in Nursing*. 219-226.
- Jeffries, P., Rodgers, B., & Adamson, K. (2015). The NLN Jeffries Simulation Theory. *Nursing Education Perspectives*, 36(5) 292-293.
- Rudolph, J. , Raemer, D.B., Simon, R. (2014). Establishing a safe container for learning in simulation: The role of presimulation briefing. *Journal of the Society for Simulation in Healthcare.* 9(6). 339-349.

APTR
ASSOCIATION FOR PREVENTION TEACHING AND RESEARCH