

MENINGOCOCCAL VACCINE: PREVENTION OF SEROGROUP B MENINGOCOCCAL DISEASE IN ADOLESCENTS AND YOUNG ADULTS

Mary Koslap-Petraco DNP, PPCNP-BC, CPNP, FAANP | Audrey Stevenson, Ph.D., MPH, MSN, FNP-BC



Introduction & Gaps

Introduction: A 2017 survey of NPs, primary care physicians and physician associates in the US revelated differences regarding the interpretation and implementation of ACIP meningococcal vaccine recommendations. Whereas 77% of HCPs correctly interpreted ACIP recommendations for the MenACWY vaccine, only 7% correctly interpreted the recommendation for MenB vaccines. A more recent study in Italy found that among nurses and physicians providing care to people with underlying conditions, 42% considered their knowledge of meningococcal vaccine strategies to be very poor/unacceptable, and 79% expressed the need for additional education on the topic.



- Vaccination is a proven strategy to prevent infectious diseases, yet immunization rates remain suboptimal.
- A critical component for increasing vaccinations among patients is adherence to ACIP recommendations.
- Significant disparities exist for meningococcal vaccine coverage, leaving many adolescents and adults at risk.

This monograph reviews the clinical presentation of meningococcal disease and the complications post-illness. Additionally, it covers the various MenB vaccines available and the indications for adolescents and young adults, and strategies to overcome disparities in vaccination rates and reduce barriers.

Program Information

Formats: A print-based on-demand monograph, downloadable patient handout "Importance of Preventing Meningococcal Disease" and one podcast "Meningococcal Vaccine: Prevention in Adolescents and Young Adults" - hosted on NP Pulse: The Voice of the Nurse Practitioner®

Data Collected: Changes in knowledge, competence, self-reported changes in confidence and practice habits, and identification of remaining gaps.

Measurements and analysis: Questions were asked before and immediately after the activity. A 60-day follow-up survey was sent to those who completed the activity to identify any practice changes made. McNemar test for each of 8 multiple choice knowledge/case questions and frequency of use. Wilcoxon test for % correct knowledge/case questions and confidence rating scale questions.

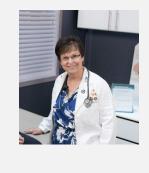
Learning Objectives:

- Summarize the need for life-span vaccination across different age groups.
- Outline evidence that supports life-span vaccination for maintaining a healthy lifestyle, including the benefits of receiving meningococcal vaccinations.
- Identify meningococcal vaccine recommendations for children, adolescents, and young
- Integrate strategies for shared clinical decision-making for adolescents and adults.
- Apply strategies for educating, encouraging, and monitoring patients to increase vaccine

Format:

This initiative included an immersive experience incorporating case-based scenarios that challenged the learner to bridge the gaps between learning and performance. The casestudies simulated real-life scenarios to overcome patient and clinician barriers.

Faculty:

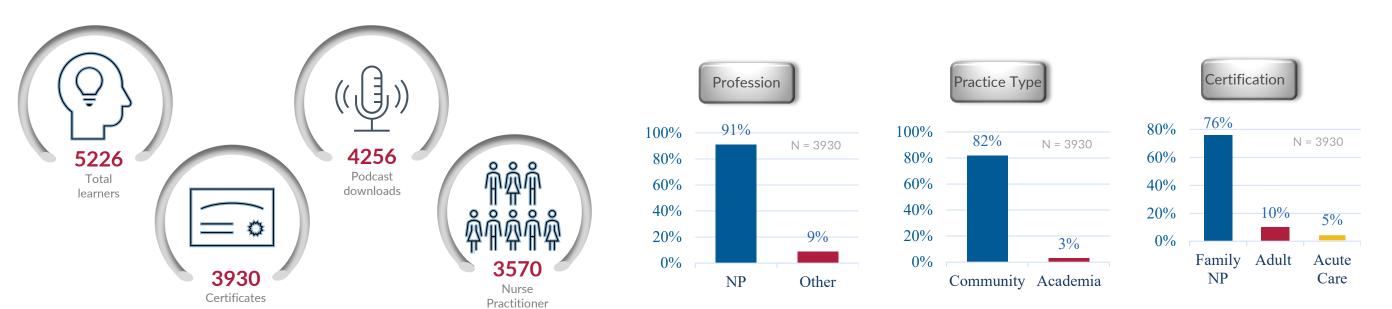


Mary Koslap-Petraco DNP, PPCNP-BC, CPNP, FAANP Clinical Assistant Professor Stony Brook University School of Nursing Stony Brook, NY



Audrey Stevenson, PhD, MPH, MSN, FNP-BC **Division Director** Family Health Services Salt Lake County Health Department Salt Lake City, Utah

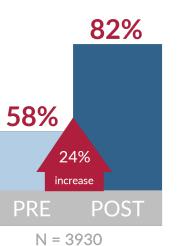
Learner Demographics



Change in Knowledge/Competence

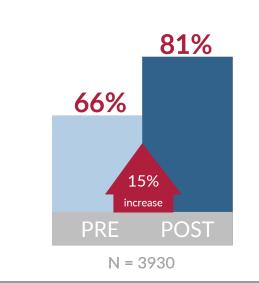
Q1. Which one of the following statements accurately represents current vaccination coverage for recommended vaccines in the US?

(Answer: Coverage is lower for young adults than for

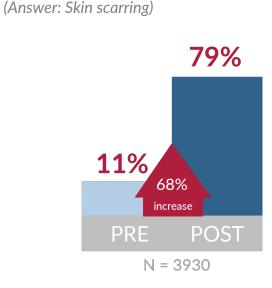


Q 2. Which one of the following represents the most clinically significant recent outbreaks of meningococcal

(Answer: Serogroup B in college students)



Q 3. Which one of the following complications is most commonly reported for young adult survivors of meningococcal disease?



Q 6. Sarah, a 17-year-old patient, presents for a routine physical

quadrivalent meningococcal conjugate vaccine (MenACWY) at

age 12. She has not been vaccinated since that time. What is the

be living in a dormitory. She received her first dose of the

recommendation for MenACWY vaccination for Sarah?

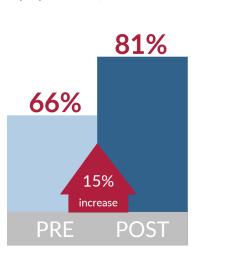
N = 3930

(Answer: She should receive her MenACWY booster today.)

examination the summer before she enters college, where she will

Q 4. Which one of the following is an evidence-based population-level benefit for the use of meningococcal

(Answer: Reduction in meningococcal disease caused by serogroup B by up to 90%)



N = 3930

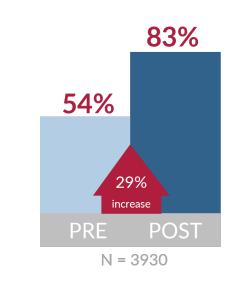
(Answer: Recommendation made about the MenB

vaccine based on shared clinical decision making.)

N = 3930

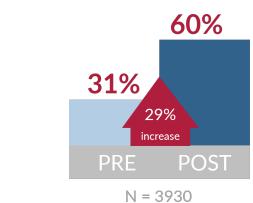
for Sarah?

Q 5. What is the preferred age range during which primary MenB vaccination should be considered?

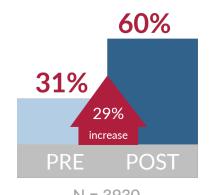


Q 7. What is the recommendation for MenB vaccination

This activity is supported by an independent educational grant from GlaxoSmithKline



Q 8. According to the CDC's Advisory Committee for Immunization Practices (ACIP), which of the following considerations should be incorporated into any shared decision-making discussions about MenB vaccination? (Answer: Seriousness of invasive meningococcal disease.)

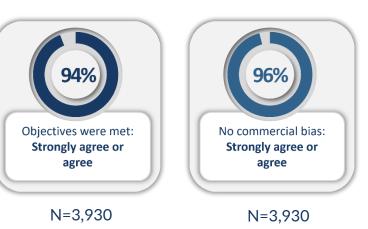


Evaluation & Practice Changes

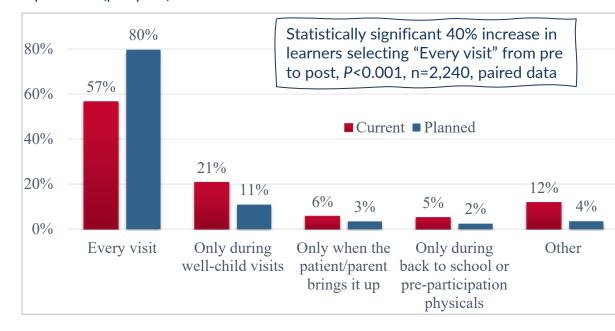
Planned practice changes (Top 3 identified):

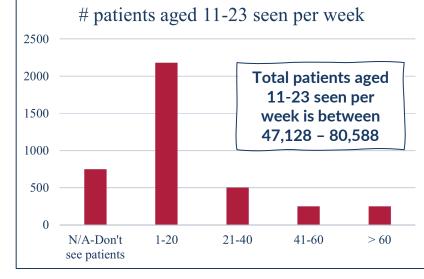
Over 450 people listed a key takeaway or practice change they plan to implement based on this activity

- Shared decision-making and using SHARE method (57 mentions)
- Increase patient/parent awareness
- Never miss an opportunity to vaccinate or discuss vaccines.







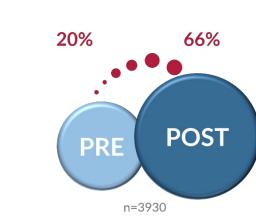


*The majority saw between 1-10 per week (n=1495)

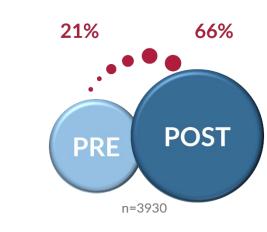
Change in Confidence

Learners were asked to rate their level of confidence in their ability to do the following tasks pre- and post-activity.

Results represent ratings of "Very" or "Extremely" confident from pre-to-post



Ability to identify the appropriate meningococcal vaccine based on the patient's age, vaccine status, and ACIP recommendations.



Ability to address patient/parent concerns about the vaccine, including side effects, safety, and effectiveness.

Educational Gap Remaining (One)

Learners remained unsure about the MenB vaccine recommendations. Only 60% showed competence in recommending MenB for a 17-year-old patient who received the first dose of MenACWY at age 12. However, of those who correctly answered the question, 66% were positive about their choice.

Future Educational Needs

- How to deal with cultural barriers against vaccinations in general.
- Vaccines and vaccine schedules are good topics for CE, overcoming vaccine hesitation included in the CE is always helpful as well.
- Shingles vaccine / other adult vaccines
- Covid vaccines and data
- Vaccine guidelines and updates

60-day Follow-Up Survey

Learners were asked to identify how often they did the following over the past 60 days.

