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Shingles & Pneumococcal Vaccines: Recommendations for Older Adults

Benjamin Flinn

CVPH - Plattsburgh

September 2018

Preceptor: Steven Heintz

Problem Identification & Description of Need

- ▶ As the immune system tends to weaken over time, patients aged 50+ begin having increased risk for certain potentially preventable diseases, especially shingles and pneumonia.
- ▶ Approximately 1/3rd of all people in the United States will develop shingles during their lifetime⁽¹⁾.
- ▶ Although these vaccinations are extremely important in the elderly, potentially confusing guidelines, concerns over risks, and recent changes to vaccine recommendations represent a significant barrier to vaccination.
- ▶ The goal of this project is to produce an educational tool to disseminate information to patients regarding vaccine recommendations for older patients in a way that's easy to understand, helps guide patient-provider conversation, and emphasizes the importance of shingles and pneumococcal vaccination.

Public Health Cost & Unique Considerations in Plattsburgh

- ▶ Shingles & post-herpetic neuralgia
 - ▶ Annual healthcare cost \$1,997,183 (2011-2012) ⁽²⁾
 - ▶ 1 in 3 Americans will develop shingles, and 1-4% of these will require hospitalization⁽¹⁾
- ▶ Pneumococcal infection
 - ▶ \$13.4 billion (estimated yearly expenditure from 2008-2014) ⁽³⁾
 - ▶ Pneumococcal pneumonia results in over 450,000 hospitalizations per year in the United States. ⁽⁴⁾
- ▶ According to the Clinton County Health Department, 69.30% of eligible adults had received one of the pneumococcal vaccines in 2016.⁽⁵⁾
 - ▶ 72.70% in Clinton County

Community Perspective & Support

- ▶ Candice Ciolac, MD - CVPH
Plattsburgh Family Medicine Center
 - ▶ States that most of her patients are aware of what Shingrex is, but are unsure if they really need it.
 - ▶ States that the most important population to target are those who do not regularly receive other types of medical care.
 - ▶ States that there is a need for education for providers as well as patients, as many providers do not recommend the vaccine as frequently/urgently as they could.
- ▶ Jennifer Beveridge, NP - CVPH
Plattsburgh Family Medicine Center
 - ▶ States that multiple patients still go without the new Shingrex vaccine due to cost/insurance concerns.
 - ▶ Believes that patients are aware of the new vaccine, but endorses a general sense of confusion among patients about the exact recommendations.
 - ▶ The most significant barrier at this time seems to be that people are concerned about side effects (predominantly that the vaccine will make them feel sick).

Intervention & Methodology

- ▶ Obtained up to date vaccine recommendations from CDC materials as well as other resources.
- ▶ Developed an educational brochure regarding the recommendations for shingles and pneumococcal vaccines in patients aged 50+ and older.
- ▶ Identified and outlined various factors that may alter a patient's recommended vaccination plan in order to encourage thorough communication with providers.

Shingles & Pneumococcal Vaccines: Recommendations for Older Adults



Shingles

- Caused by the **varicella zoster virus (VZV)**, which also causes chicken pox.
- As we age, the virus can reactivate and cause shingles, which is associated with a painful, blistering rash, and can sometimes cause nerve pain that can last for months or years.
- Two vaccines are available: **Zostavax** and **Shingrex**
- **Zostavax**
 - Older (approved in 2006)
 - Live vaccine, one dose
 - Previously recommended for all patients aged 60+
- **Shingrex (preferred)**
 - Newer (approved in 2017)
 - Protein-based vaccine
 - Provides stronger protection than Zostavax
 - **Recommended in all patients aged 50+, even if you've received the older shingles vaccine in the past.**

Pneumococcal

- Helps protect the lungs and bloodstream against infection with the bacteria **streptococcus pneumoniae**.
- Although anyone can be infected with this bacteria, the risk increases as we age.
- There are two recommended pneumococcal vaccines, PCV13 & PPSV23. **It is recommended to eventually receive both for all those aged 65+.**
- The two vaccines cannot be given on the same day, and you will need to return to receive the 2nd one in 1 year.
- There are many factors that may influence which vaccine you should receive first. Make sure to notify your doctor if you have any of the conditions listed on the right.

Be sure to let your doctor know if you have any of the following:

- Immunosuppression (HIV, medications, etc), as the live vaccine (Zostavax) cannot be used in patients with immune system dysfunction
- Chronic heart, lung, or liver disease
- Alcohol/tobacco use
- Diabetes
- Surgically removed spleen
- Recent organ transplant
- Cochlear implant
- Immunosuppression
- Cancer

Outcome / Response

- ▶ The educational brochure was distributed to providers at the CVPH Family Medicine Center.
- ▶ Ideally this brochure will be able to serve as a jumping off point for discussion with patients that are curious about their vaccination recommendations.
- ▶ Dr. Collins and other providers at CVPH Family Medicine have endorsed the need for educational tools to help patients understand their vaccine recommendations, and time will tell if this brochure was effective at helping meet this need.

Proposed Evaluation of Effectiveness & Limitations

- ▶ Vaccination rates are already being tracked by the Clinton County Health Department to the best of their ability, and hopefully tools such as these will help continue the increasing percentage of vaccinated patients over 50.
- ▶ Effectiveness of this tool could be assessed by utilizing patient and provider feedback to determine how frequently patients are picking up/reading the brochures, as well as how useful the brochure was at educating patients and alleviating patient concerns.
- ▶ Due to time constraints for the Family Medicine Clerkship, there will not be time to collect data on the effectiveness of this tool.
- ▶ As the shingles and pneumococcal vaccinations are all considered to be quite safe, common side effects were not included in the brochure to avoid swaying patients against obtaining vaccination. However, this makes the brochure less useful for patients who abstain from vaccination due to concerns over side effects.
- ▶ Additionally, the brochure is only available in English and thus will not be an effective educational tool for patients who are unable to read written English.

Recommendations for Future Projects

- ▶ Further projects could utilize patient surveys to determine the most prevalent barriers to vaccination of patients aged 50+ in order to more specifically address those concerns.
- ▶ Additionally, the brochure could be translated to other languages in order to provide benefit for a wider range of patients.
- ▶ The new shingles vaccine is still fairly new and thus is still often quite expensive. Providers should occasionally follow up to determine how well Shingrex is being covered by insurance in order to begin recommending it to patients who cannot afford it currently. In addition, once this occurs then further educational materials can assist with notifying patients that it may be worthwhile to ask their providers again about the shingles vaccine.

References

1. What Vaccines are Recommended for You. Centers for Disease Control and Prevention. <https://www.cdc.gov/vaccines/adults/rec-vac/index.html>
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5. [Annual Report 2017. Clinical County Health Department, Health Care Services Division.](http://www.clintonhealth.org/pdf%20files/HCS%20Annual%20Report.pdf)

Used in the Brochure:

- ▶ What Vaccines are Recommended for You. Centers for Disease Control and Prevention. <https://www.cdc.gov/vaccines/adults/rec-vac/index.html>
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- ▶ Adults Age 65 and Older. U.S. Department of Health and Human Services (HHS). https://www.vaccines.gov/who_and_when/adults/seniors/index.html
- ▶ Pneumococcal Vaccine Timing for Adults. Centers for Disease Control and Prevention. <https://www.cdc.gov/vaccines/vpd/pneumo/downloads/pneumo-vaccine-timing.pdf>
- ▶ Adults Need Vaccinations Too: The Importance of Immunizations for Older Adults. Centers for Medicare & Medicaid Services. <http://atomalliance.org/adults-need-vaccinations-too/>

Interview Consent Form

- ▶ Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview. Yes / No If not consenting as above: please add the interviewee names here for the department of Family Medicine information only. Name:
Candice Ciolac, MD
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Jennifer Beveridge, NP