Everything you needed to know about Shingles, and the Shingles Vaccine

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Herpes Zoster (Shingles)

It is Painful
It can be debilitating,
and it is Preventable!!

“SHINGLES”
A reactivation of the chicken pox virus in a specific “dermatome”

Objectives

- Audience will understand the pathogenesis of Shingles (Herpes Zoster), from childhood to adulthood.
- Audience will review the CDC recommendations for the Shingles vaccine, and will discuss the advantages and disadvantages of vaccination utilization.
- Audience will identify barriers to the utilization of Shingles Vaccine.
- Participants will discuss implementation strategies which improve vaccination rates
FACTS ABOUT SHINGLES (Herpes Zoster)

- 99% of persons older than 50 have been exposed to the chicken pox virus sometime in their life, and they are at risk for getting Shingles.
- Due to waning t-cell mediated immunity, the risk of getting Herpes Zoster is greater as you age, and there is a greater chance of getting post-herpetic neuralgia (pain after the rash is gone).
- There are about a million cases of shingles a year in America.

The life cycle of Herpes Zoster

Adult dermatome map
Natural Course of the Disease

- **Prodrome:** pain/pruritus, tingling, unilateral. Precedes eruption by 4-5 days.
- **Eruptive phase:** does not cross the midline
- **Starts with red, swollen plaques that spread throughout the dermatome**
- **Vesicles arise in clusters, then rupture before forming a crust which falls off between 2-3 weeks**

Complications of Shingles

- Post herpetic neuralgia
- Ocular involvement with facial zoster
- Meningoencephalitis
- Cutaneous dissemination
- Super-infection of skin lesions
- Hepatitis/pneumonitis
- Peripheral motor weakness/segmental myelitis
- Cranial nerve syndromes, particularly ophthalmic and facial (Ramsay Hunt Syndrome)
- Corneal ulceration
- Guillain-Barré Syndrome

Thoracic distribution
Post Herpetic Neuralgia

- The impact of post herpetic neuralgia on quality of life has been compared to congestive heart failure, major depression, and severe diabetes.
- Occurs in 50% of patients who develop shingles over the age of 70.
- Allodynia, hyperpathia and lancinating pain.
- Requires multimodality pain management.

Why it is so painful

FACTS ABOUT THE SHINGLES VACCINE (AKA: Herpes Zoster vaccine “Zostavax”):

- Reduces the incidence of disease by 51.3%
- Reduces the incidence of Post-herpetic neuralgia by 66.5%
- Reduces the burden of illness due to Shingles by 61.1%
CDC recommendations

- The Centers for Disease Control/Advisory Committee for Immunization Practices (CDC/ACIP) recommends Shingles vaccine to be given as a one time dose for adults >60.
- The FDA has approved its use for greater than 50 years of age.
- It is a live virus, therefore, patients must have an intact immune system to receive the vaccine. Get it while you are healthy!!
- Despite the safety and efficacy of this vaccine, only 24% of eligible persons take advantage of the Shingles vaccine.

Contraindications

- Persons with blood cancers; lymphoma, leukemia, multiple myeloma
- Persons on chemotherapy for solid tumors, however, patients MAY receive the vaccine 2-4 weeks before starting chemotherapy.
- Persons on immune-modulating agents for RA, Lupus, MS, and other autoimmune diseases. However, patients MAY receive the vaccine 2-4 weeks before starting medications.
- Persons allergic to neomycin.
- May give to persons older than 80 years of age, however, its efficacy decreases as a person ages. Best to receive 55-80.

Other Considerations

- Patients who have received the Varicella vaccine: no information.
- Patients who are younger than 50 years of age.
- HIV patients, and other immunocompromised patients.
Research study: Purpose

• This survey study was conducted to assess and evaluate Nurse Practitioners experiences with the herpes zoster vaccine, and to assist in identifying any entity that restraint or obstructs the provision of the CDC recommended HSV by Nurse Practitioners.

Participants

➢ Study participants included New York State primary care nurse practitioners who are members of the Nurse Practitioner Association of New York State.
➢ NPs who are actively practicing with adults greater than 50 years of age.
➢ Pediatric and specialty nurse practitioners were excluded from this study, as they do not generally administer HSV.

Methods

• This descriptive, cross-sectional survey design study used a Likert scale survey to quantitatively measure nurse practitioner's practice patterns and experiences with the Herpes zoster vaccine.

• Nurse practitioners, were sent an email invitation which provided a link which directed volunteer participants to the anonymous web-based questionnaire via Qualtrix.
Findings

• The three major barriers identified: up front cost (46%), cost concerns for patients (39%) and reimbursement issues (29%).
• Knowledge of reimbursement: some (32%), little (40%), and none (18%).
• 49% were much more likely to administer vaccine if it were covered by Medicare part B.

Identified barriers to the Utilization of Herpes Zoster Vaccine from physician studies:

Patient barriers: Lack of provider recommendation

Provider barriers:
• The ‘up-front’ costs of purchasing the vaccine
• Cost concerns for patients
• Concerns about safety of the vaccine
• Concerns about the effectiveness of the vaccine
• Freezer storage
• The need to have patients pick up zoster vaccine at a pharmacy
• Low incidence of herpes zoster and post herpetic neuralgia
• Lack of serious sequelae of herpes zoster and post herpetic neuralgia
• More pressing medical issues taking precedence over the vaccine
• Concerns that I will accidently administering this vaccine to an immunocompromised patient

Implications

• The results of this study inform the need for innovative strategies to be implemented by the providers, and support the need for a multi-layered, systematic foundation for change.
• There are many gaps that need to be closed in order to improve adult vaccination rates in our country, and Nurse Practitioners are poised to assist on all levels.
• Education, policy change.
• Develop a comprehensive adult immunization program in America.
Surprising information about coverage:

- After the age of 60, most commercial insurances are paying for the vaccine.
- Catch the “sweet spot”, between the ages of 60-65, before Medicare kicks in, is the best time to receive vaccine.
- For those older than 65, Medicare part D (Pharmacy benefit), covers much of vaccination costs. However, not everyone has part D coverage, and there is a co-pay.
- The Shingles vaccine is easily obtained through pharmacies, however, in NYS, a provider prescription is necessary. This is not so for flu and pneumonia shots.

Implementation Strategies:

- 1. Standing orders
- 2. Protocols
- 3. Assessing vaccination status at each visit
- 4. Assessing insurance coverage for vaccination
- 5. Offer vaccination options such as pharmacies

References

References


• Shuler P, & Coleman M. Effect of the Quality of Preventive Services on Elders’ Health. Preventive Medicine. 2010; 51(2), 141-146. doi: 10.1016/j.ypmed.2010.06.009


