

Shingles: Disease & Vaccine Update

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Paul R. LePage, Governor

Maine Center for
Disease Control and Prevention

An Office of the
Department of Health and Human Services

Ricker Hamilton, Commissioner

Reminders & Housekeeping

- This webinar is being brought to you by the Maine Immunization Program (MIP), part of Maine CDC, Department of Health & Human Services. There is no continuing education available.
- MIP has no relationship with vaccine manufacturers or distributors.
- All information within this webinar is up-to-date as of February 23, 2018. Please refer to the manufacturers websites for additional updates.

Objectives

At the end of this webinar, participants will be able to:

1. Describe Shingles, how the disease progresses, and identify risk factors, symptoms, and complications from the disease.
2. Discuss the two vaccines available for Shingles including, but not limited to: storage and handling requirements, indications and the new ACIP recommendations.
3. Understand why Shingrix is now recommended over Zostavax.
4. Talk with patients about why they should receive Shingrix vaccine.

Shingles

- Shingles is a viral infection primarily characterized by a painful rash located on the head or torso, usually on one side of the body. Anyone who has gotten the Chickenpox can get Shingles – even children.
- Symptoms:
 - Pain, itching or tingling of the skin
 - Rash of blister-like sores
 - Fever, headache, chills (~20% of patients)
 - Upset stomach



Shingles

- If a patient had Chickenpox as a child, the Herpes Zoster (HZ) virus is already inside their body.
 - Patients who never had the Chickenpox disease do not have the HZ virus inside their body, however the Chickenpox, or HZ, virus may be contracted through contact with an infected person.
 - Current research suggests the patients that have never had Chickenpox would benefit from vaccination.
- As the body ages the immune system cannot suppress the HZ virus as well, causing the virus to flare and symptoms to develop.
- About 1 in 3 people will develop Shingles at age 60 or older.
 - That's about 1 million cases per year

Shingles

- Risk Factors:
 - Increasing age CK6
LA6
 - Female (increased risk)
 - White (risk is 2x higher in whites than African Americans)
 - Trauma/surgery in affected dermatome

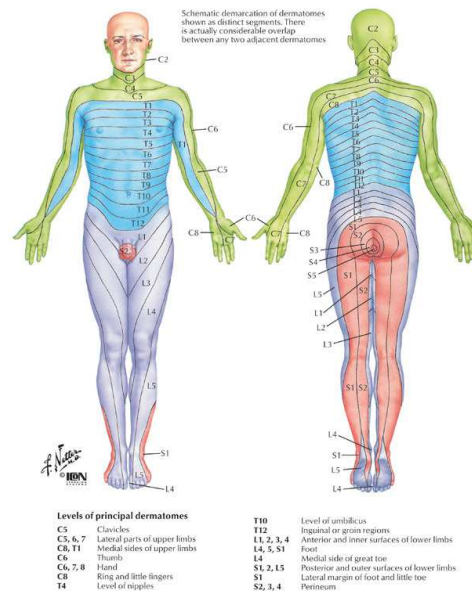


Image: <http://infectioncontrol.ucsfmedicalcenter.org/education>

Source: US CDC, NFID

Slide 6

- CK6** balance the slide (text and graphics vs white space)
Coaty, Kristen, 1/25/2018
- LA6** Added graphic to help explain what a dermatome is
Levesque, Ashley, 1/29/2018

Shingles



Shingles

- Those who have Shingles should avoid contact with the following people:
 - Pregnant women who have never had Chickenpox or the Varicella vaccine
 - Premature or low birth weight infants
 - Those with a weakened immune system
- There are currently no recommendations to stay home from work or school
- Transmission of Shingles virus is less contagious than Chickenpox.
 - Only contagious before blisters have crusted
- Covering the rash greatly minimizes risk of transmission.

Treatment

- Blisters will begin to scab over in 7 – 10 days and the rash typically clears in 2 – 4 weeks.
- Treatment is fairly limited:
 - Acyclovir, Valacyclovir or Famciclovir
 - Pain medicines
 - Wet compresses, calamine lotion & colloidal oatmeal baths
- Best ‘treatment’ is prevention!



Prevention

- All children should receive two doses of Varicella vaccine per ACIP Recommendations.
- Adults should receive Shingles vaccine whether they had the Chickenpox or not.
- Two vaccines available in the US:
 - Zostavax
 - Shingrix



Zostavax

- Live Attenuated Zoster Vaccine
- Licensed in 2006 for those 60 years old and older
- Must be kept frozen
- Single dose administered subcutaneously

- Is 51% effective against HZ
 - Only ~35% effective for those over 70
 - Immunity wanes after 1-2 years
- Efficacy is 67% for postherpetic neuralgia (PHN)
- Low uptake for the vaccine, only about 30% of population vaccinated

- Contraindicated for people with immunosuppression

Source: NFID, US CDC

Shingrix

- Adjuvanted Recombinant Zoster Vaccine
- Licensed October 2017 for those 50 years old and older
- Must be refrigerated - antigen component must be mixed with adjuvant suspension
- 2 dose series administered intramuscularly in the deltoid and 0 and 2-6 months.
- Efficacy for HZ amongst the 4 groups studied ranges: 91.3% – 97.9%
- Expected to potentially prevent 53,000 cases of Shingles and 4,000 cases of PHN per year.
- Contraindications: History of severe allergic reactions to components of the vaccine or after 1st dose. Additional studies are currently being conducted with individuals with immunosuppression.

New ACIP Recommendation October 2017

- Shingrix is recommended for:
 - Prevention of herpes zoster and related complications for immunocompetent adults aged 50 years and older.
 - Prevention of HZ and related complications for immunocompetent adults who previously received zoster vaccine live (Zostavax)
- Shingrix is preferred over Zostavax for the prevention of HZ and related complications.
- US CDC accepted this ACIP Recommendation on January 26, 2018.

Why The Change of Recommendation?

- Vaccine efficacy against HZ and PHN is much higher in Shingrix
 - Current data suggests high efficacy in ALL age groups studied over 4 years
 - Ages 50-80
 - Efficacy for HZ amongst the 4 groups ranges: 91.3% – 97.9%
 - Efficacy for HZ after 4 years: 87.9%
 - Efficacy for PHN in those 70 and older: 88.8%

 - Remember, Zostavax efficacy against HZ is 51% and against PHN is 67%
- Efficacy unknown for just 1 dose

Safety Profile

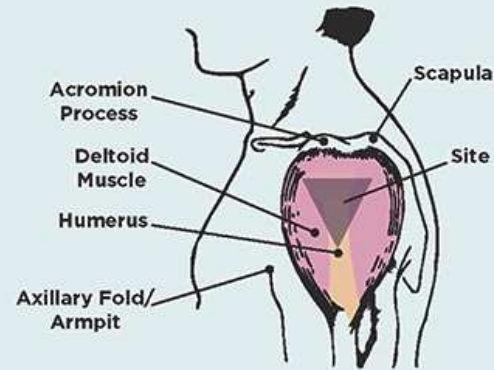
- All data currently shows there is no increased risk of adverse events.
- Most common events were site reactions and systemic symptoms which usually resolved in 2-4 days.
- Need additional safety data, but the vaccine is considered safe to use now with your patients.
- Need more data on co-administration with other vaccines.

Administration Safety



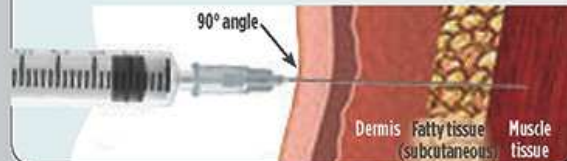
Identify the injection site

- » Locate the deltoid muscle of the upper arm
- » Use anatomical landmarks to determine the injection site
- » In adults, the midpoint of the deltoid is about 2 inches (or 2 to 3 fingers' breadth) below the acromion process (bony prominence) and above the armpit in the middle of the upper arm



Administer the vaccine correctly

- » Inject the vaccine into the middle and thickest part of the deltoid muscle
- » Insert the needle at a 90° angle and inject all of the vaccine into the muscle tissue



Always follow safe injection practices

- » Maintain aseptic technique
- » Perform hand hygiene before preparing and administering vaccines
- » Use a new needle and new syringe for each injection
- » If using a single-dose vial (SDV) discard after use
A SDV should be used for one patient only!



IM injection best practices

- » Administering the injection too high on the upper arm may cause shoulder injury
- » If administering additional vaccines into the same arm, separate the injection sites by 1 inch if possible

Report any clinically significant adverse event after vaccination to the Vaccine Adverse Event Reporting System (VAERS) at vaers.hhs.gov/

For additional information on proper vaccine administration, visit the CDC vaccine administration web page at www.cdc.gov/vaccines/hcp/admin/admin-protocols.html

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Centers for Disease Control and Prevention

Remember—you call the shots when it comes to proper flu vaccine administration!

Talking With Patients About Shingrix

- Patient refusal should be considered temporary – be sure to assess why the patient is refusing vaccination at EVERY visit. May be accomplished by:
 - Take an extra minute to find out why patient is refusing.
 - Make a firm, positive recommendation to get the vaccine.
 - Refer to another Provider if needed to finish series or for cost concerns.
 - Example: Refer patient to pharmacy for 2nd dose
- [NFID Shingles Toolkit](#)
- VIS – Zoster Recombinant published 2/12/2018

Recalling Patients

- Remember, Shingrix is a 2-dose series
- Tips to vaccinate all adults aged 50 and older against Shingles:
 - Give the patient an appointment card.
 - Use recall reminders prior to 2nd appointment.
 - Assess dose completion of series-dosed vaccines at each patient encounter.
 - Offer vaccines in the late afternoon, evening & weekends.
 - Partner with other Provider to complete the series.
 - Designate an Immunization Champion within your practice.

ImmPact Scheduling Tracker

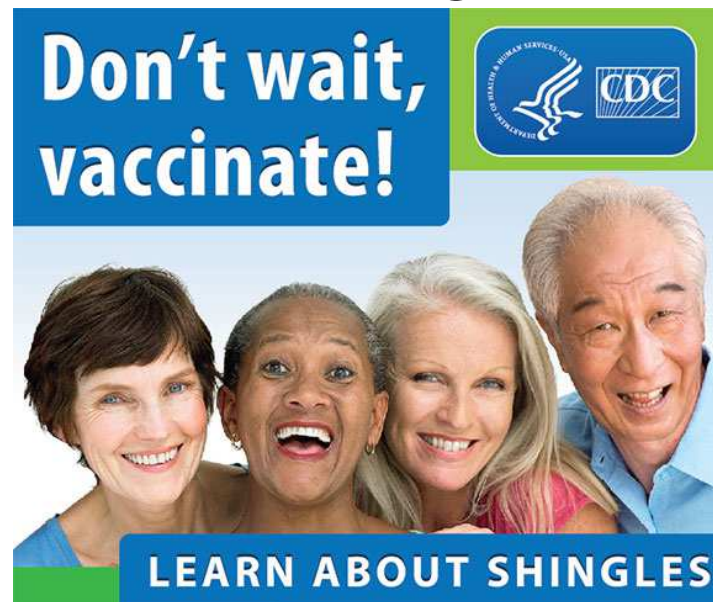
- There will be some changes in the ImmPact Scheduling Tracker to accommodate the new Shingrix recommendations
 - Zoster Live = Zostavax
 - Zoster Recomb = Shingrix

History								
Add Immunization Edit Client Reports Print Print Confidential								
Vaccine Group	Date Administered	Series	Trade Name	Dose	Owned?	Reaction	Hist?	Edit
Zoster Live	01/10/2017	1 of 1			Yes		Yes	
Current Age: 73 years, 28 days								
Vaccines Recommended by Selected Tracking Schedule								
Non-validated doses are not included in the forecasting logic. Non-validated doses should be confirmed.								
Vaccine Group	Earliest Date	Recommended Date	Overdue Date	Latest Date				
Hep A	01/02/1946	01/02/1946	12/02/1946					
HepB	01/02/1945	01/02/1945	04/02/1945					
Influenza	07/02/1945	07/02/1945	08/02/1945					
Meningococcal	03/02/1945	01/02/1956	01/02/1958					
Pneumo-Poly	01/02/1947	01/02/2010	01/02/2011					
Polio	02/13/1945	03/02/1945	05/02/1945					
Td	01/02/1952	01/02/1952	02/02/1952					
Varicella	01/02/1958	01/02/1958	01/02/1959					
Zoster Live		Complete						
Zoster Recomb	03/07/2017	03/07/2017	03/07/2017					

Yellow = Can Administer Green = Due Blue = Overdue Pink = Completed or Invalid
[View Explanation of Schedule Highlighting](#)

ImmPact Scheduling Tracker

Remember – patients who have previously been vaccinated with Zostavax are recommended to be revaccinated with 2 doses of Shingrix.



Sources

Dalton M., Hogue M., Schaffner W. *Shingles Vaccines: What You Need To Know*. NFID. Live Webinar. December 6, 2017.

Shingles. U.S. CDC. DHHS. www.cdc.gov/shingles

NFID Shingles Toolkit: <http://www.nfid.org/shingles-awareness-toolkit>

VIS: <https://www.cdc.gov/vaccines/hcp/vis/current-vis.html>

Questions?

Maine Immunization Program
Main Line: 207-287-3746
Education Line: 207-287-9972

Thank you!!

