

Vaccination Guidance for the Prevention of Herpes Zoster (Shingles)

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What is herpes zoster or shingles?

Herpes zoster, known as shingles is caused by the reactivation of varicella zoster virus (VZV). Initial infection causes varicella disease (chickenpox). After initial infection, VZV remains dormant in the dorsal root ganglia and years to decades later reactivates as shingles. When reactivated, VZV produces a painful unilateral skin rash.

About 30 percent of Americans will develop shingles in their lifetime. The risk for shingles disease is higher for people age 50 years and older and increases with age. People with compromised immune systems are also at higher risk for shingles.

Pain is the most common symptom of shingles. A rash usually develops after the pain has started. The most common serious complication of shingles is severe pain that remains after the rash disappears called post herpetic neuralgia (PHN). About 1 in 5 persons who get shingles will get PHN. The likelihood of PHN increases with age. Other less common complications of shingles include vision loss, hearing problems, pneumonia, brain inflammation, and death.

Recommendation for the prevention of zoster

There are two vaccines available to protect against zoster disease.

1. Zoster vaccine live (ZVL, brand name Zostavax) has been recommended since 2008 for individuals 60 years and older.
2. A new inactivated, adjuvanted recombinant zoster vaccine (RZV, brand name Shingrix) was recommended for immunocompetent adults 50 years and older in October 2017. This includes immunocompetent adults with chronic medical conditions such as diabetes, lung disease, etc.
 - Shingrix is given as a 2-dose series, 2 to 6 months apart (0, 2-6 months).
 - Shingrix is preferentially recommended over Zostavax for its higher efficacy and longer duration of protection.
 - CDC provides more information on the efficacy and duration of protection of Shingrix in the Morbidity and Mortality Weekly Report (MMWR): Recommendations of the Advisory Committee on Immunization Practices for Use of Herpes Zoster Vaccines (www.cdc.gov/mmwr/volumes/67/wr/mm6703a5.htm).
 - People who previously received Zostavax are recommended to get Shingrix. (See page 4 for more details.)

Key differences between zoster vaccines		
	Recombinant Zoster Vaccine (RZV), Shingrix	Zoster Vaccine Live (ZVL), Zostavax
Vaccine type	Inactivated, recombinant subunit, with adjuvant	Live virus
Doses	2 doses, 2-6 months apart	1 dose
ACIP recommended age	50 years and older	60 years and older
Storage temperature	Refrigerated, 36 to 46°F (2 to 8°C); do not freeze	Frozen, -58 to 5°F (-50 to -15°C)
Route	Intramuscular (IM), 0.5ml/dose	Subcutaneous (SQ), 0.65ml/dose
Contraindications	Severe allergic reaction to previous dose of vaccine or a component of the vaccine	Severe allergic reaction to previous dose of vaccine or a component of the vaccine Known severe immunodeficiency Pregnancy
Precautions	Acute moderate or severe illness	Acute moderate or severe illness
Common side effects	<i>Frequent</i> Local: Redness, pain, swelling Systemic: Achiness, tiredness, headache, shivering, fever	<i>Infrequent</i> Local: Redness, pain, swelling Systemic: Headache, zoster-like rash

Storage and handling and administration of zoster vaccines

Be aware that Shingrix and Zostavax vaccines are different vaccine types (i.e., Shingrix is an inactivated vaccine that contains an adjuvant, Zostavax is a live virus vaccine). They have different administration and storage and handling guidelines. Improper storage and handling or administration of either vaccine could alter effectiveness. Make sure staff know which vaccine your clinic has in stock and follows proper procedures.

- Shingrix is stored in the refrigerator at 36 to 46 degrees Fahrenheit (2-8 degrees Celsius). Shingrix exposed to freezing temperatures is no longer effective and should not be used. Post reminders on vaccine storage units to remind staff that Shingrix needs to be stored in the refrigerator not the freezer.
- Shingrix is given intramuscularly. Giving it in the incorrect route could cause more severe local reactions and potentially affect efficacy.

Contraindications and precautions for Shingrix

Contraindication:

- A life-threatening reaction to a previous dose of this vaccine or to one of its components.

Precautions:

- Acute moderate or severe illness.
- Vaccination is not a treatment for herpes zoster or PHN. Defer vaccination for patients with acute zoster infection until symptoms resolve.
- There is no data on the safety and efficacy of Shingrix in pregnant or breastfeeding women.

Special populations

Chronic medical conditions

- Give Shingrix to persons 50 years and older with chronic medical conditions such as:
 - Diabetes.
 - Chronic renal failure.
 - Rheumatoid arthritis.
 - Chronic pulmonary disease.
 - Other non-immunosuppressing chronic conditions.
- Shingrix is recommended for people on low-dose immunosuppressive therapy (e.g., less than 20 mg/day of prednisone or equivalent, inhaled or topical steroids, etc.), people who have recovered from immunosuppression, and those that anticipate becoming immunosuppressed.
- Altered immunocompetence: There is no recommendation on the use of Shingrix in persons with primary or secondary immunodeficiency. ACIP is reviewing data to provide more guidance in the future.

Varicella vaccination/zoster disease history

- Persons who have a history of zoster should receive Shingrix. If a person is currently experiencing a zoster episode, delay vaccination until the acute phase of the illness is over.
- Persons who have previously received varicella vaccination should receive Shingrix.
- Testing for VZV is not recommended prior to Shingrix vaccination. However, if testing has been done and the person is VZV-negative, give them varicella vaccine.

Vaccination of persons who previously received Zostavax

Individuals who were previously vaccinated with Zostavax should receive the Shingrix series as recommended: 2 doses, 2-6 months apart.

Consider both the patient's age and time since receipt of Zostavax in determining when to revaccinate with Shingrix. Promote Shingrix revaccination for patients at highest risk of zoster disease and complications. This may include patients that:

- Are greater than 70 years old. Clinical trials indicate that Zostavax is less effective in adults age 70 and older and protection diminishes more quickly than in younger individuals.
- Received Zostavax 5 or more years ago. Protection with Zostavax quickly declines in the 4 years after vaccination.
- ACIP recommends a minimum interval of 8 weeks between previous Zostavax and Shingrix vaccination.

Common reactions to Shingrix

Severe reactions to Shingrix are very rare. However, non-serious reactions such as redness, pain, or swelling at the injection site are common after Shingrix vaccination. This is likely due to the adjuvant. Additionally, patients complained of systemic reactions such as feeling tired, muscle pain, shivers, and headache. About 17 percent of people who receive Shingrix will experience a reaction that is significant enough to affect their normal activities for a few days after vaccination. In clinical trials, reactions, or lack of a reaction, to the first dose of vaccine did not predict a reaction to the second dose. Alert patients to these common reactions before vaccinating. Offer suggestions for how to alleviate symptoms, such as over-the-counter medications.

Messages for patients receiving Shingrix

Make sure every patient gets the Recombinant Shingles Vaccine Information Statement (VIS) (www.cdc.gov/vaccines/hcp/vis/vis-statements/shingles-recombinant.html) before each dose.

Use these talking points when discussing Shingrix vaccination with patients.

- Medicare Part D plans cover both zoster vaccines. However, your cost for the vaccine depends on your plan. If you have private insurance, contact your plan before vaccination to ensure coverage.
 - Adults who do not have insurance or whose insurance does not cover Shingrix may be eligible to receive it through the Uninsured and Underinsured Adult Vaccine (UUAV) program (www.health.state.mn.us/divs/idepc/immunize/adultvax/). Contact the UUAV program at health.uuadultvax@state.mn.us if you have questions.
- For this vaccine to be effective, you need two doses. Get the next dose between 2 and 6 months after the first dose. Make an appointment now for the second dose.
- Side effects are common after Shingrix, but they will go away in a day or two. You may have a sore, swollen, red arm for a couple of days. Also, many people feel tired, achy, and may have a headache for 1-2 days after vaccination. Talk to your health care provider about how to manage these symptoms.

Minnesota Immunization Information Connection (MIIC)

Use MIIC to report Shingrix vaccination and assess zoster vaccination history. MIIC vaccination histories include vaccinations your patients have received from different providers in Minnesota. MIIC also offers several other features to help support your vaccination practice and quality improvement activities. To learn more, visit Minnesota Immunization Information Connection (MIIC) (www.health.state.mn.us/miic) or contact the MIIC Help Desk at health.miichelp@state.mn.us.

Additional information

- MDH: Shingles (Herpes Zoster) (www.health.state.mn.us/divs/idepc/diseases/shingles/)
- CDC: Shingrix Information for Healthcare Professionals (www.cdc.gov/vaccines/vpd/shingles/hcp/shingrix/)