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Shingrix Revaccination and Vaccination in Vulnerable Populations

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Herpes zoster, also known as shingles, is a painful cutaneous eruption that develops following the reactivation of the varicella zoster virus (VZV), the same virus that causes chickenpox.[1] About 1 in 3 people in the United States will develop shingles, with an estimated 1 million cases occurring annually. Anyone with a history of chickenpox is at risk for shingles, but the risk increases with age and in patients who are immunocompromised.[2]

The most common complication following reactivation of VZV is postherpetic neuralgia (PHN), which causes severe and potentially debilitating pain that can persist for months or even years after shingles has resolved. Risk of this complication increases with age, with older adults more likely to have longer-lasting episodes and more severe pain.[2]

To prevent herpes zoster, patients can receive 1 of 2 US FDA-approved vaccinations: Zostavax, zoster vaccine live, which was approved in 2006 for patients 60 years and older; and Shingrix, the newer, recombinant zoster vaccine, which was approved in 2017 for adults 50 years and older.[1]

Shingrix is preferred by the Advisory Committee on Immunization Practice, part of the US CDC, regardless of previous herpes zoster infection or previous vaccination with Zostavax,[1,3] because it has shown greater than 90% efficacy against herpes zoster in the first year, and sustained efficacy of more than 85% at least 4 years after vaccination. In comparison, Zostavax has been shown to have 64% efficacy in patients aged 60 to 69 years and 38% efficacy in patients 70 years and older. Zostavax has also shown a substantial decrease in effectiveness after the first year of vaccination, with less than 35% efficacy by 6 years postvaccination.[1] In addition, the efficacy of Zostavax has been shown to decrease in each decade of life after age 50; however, Shingrix has shown only a modest decrease in efficacy over the lifespan studied.[3]

Zostavax is still available as an option for patients who are allergic to Shingrix, those who require immediate vaccination when Shingrix is unavailable, or those who have a personal preference for Zostavax.

Immunocompetent adults 50 years or older should receive 2 doses of Shingrix, administered 2 to 6 months apart.[3] The series does not need to be restarted if more than 6 months has passed since the initial injection; providers can simply administer the second dose as soon as possible. Patients who received their second dose less than 2 months after the initial injection should receive an additional dose within 6 months.[3]

Although the safety and efficacy of Shingrix in patients who have received Zostavax within 5 years has not been established; a recent study in patients 65 years and older who received the vaccination at least 5 years after receiving Zostavax found no difference in the safety or efficacy of Shingrix.[4] The CDC currently recommends vaccination with Shingrix at least 2 months after use of Zostavax.[1,3]

Vaccine-related reactions are common in patients receiving Shingrix with 78% of patients reporting some injection site pain. Additionally, about 1 in 10 patients reported grade 3 injection symptoms including pain, redness and swelling of the injection site, myalgia, fatigue, headache, shivering, and gastrointestinal illness. Patients should be counseled on the potential for adverse effects, which can limit normal activities for 2 to 3 days, at most. Patients are encouraged to complete the series even if they have a reaction to the first dose.[3]

The only known contraindication to Shingrix is a severe allergic reaction to any component of the vaccine.[3]

Shingrix must be stored in the refrigerator and should be administered immediately upon reconstitution. However, it can be stored in the refrigerator and used up to 6 hours after reconstitution. Shingrix should be discarded if frozen.[3] Zostavax must be stored at freezing temperatures (between -58F and 5F) prior to reconstitution and should be reconstituted and administered immediately upon removal from the freezer to minimize loss of potency. Reconstituted vaccine should be discarded within 30 minutes if not used.[5]

According to the CDC, individuals 50 years and older on low-dose immunosuppressive therapy, those who have recovered from an immunosuppressive illness, or those who are expecting to be immunocompromised are still eligible for vaccination. The CDC has not provided guidance on the use of Shingrix in other immunocompromising conditions. Health care providers should be aware of manufacturer shortages and plan accordingly to ensure that patients are vaccinated in a timely manner. A patient reminder program has been established through the manufacturer to assist in ensuring that patients receive both doses of vaccine.[3] Use of the vaccine locator feature, provided by the manufacturer can help patients and providers in this process. Patients may also locate providers with vaccine in stock by utilizing the vaccine finder feature, available through the CDC.[3,6]

Because of the limited availability of Shingrix and shipping delays expected to last through 2019,[7] vaccine providers should educate patients about the importance of completing the series, regardless of lapsed intervals, as well as provide strategies to help patients receive vaccinations on time. Pharmacists can play a valuable role in educating their patients about the importance of Shingrix, addressing their questions and concerns, and ensuring they receive both doses as indicated. The CDC and manufacturer currently do not recommend any prioritization of individuals or any deviation from the recommended 2-dose schedule.

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