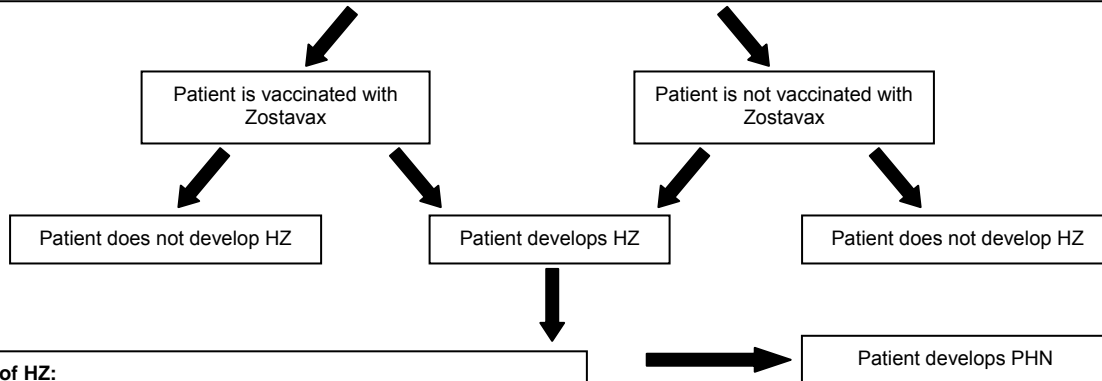


Guide for the Prevention and Treatment of Postherpetic Neuralgia (PHN)

Postherpetic neuralgia (PHN), a disabling consequence of herpes zoster (HZ) caused by the reactivation of the varicella-zoster infection, can be effectively prevented with the Zostavax vaccine and treated with several pharmacologic therapies.

Consider vaccination with Zostavax in appropriate patient population:

- Live, attenuated vaccine indicated for prevention of HZ in adults ≥ 60 years old.¹
- Shingles Prevention Study²
 - 38,546 men and women aged ≥ 60 years with no previous history of HZ
 - Reduced risk of developing HZ by 51% in adults ≥ 60 years old and by 64% in adults 60 to 69 years old
 - Reduced duration of postherpetic neuralgia (PHN) in individuals who develop HZ despite vaccination
 - Incidence of PHN reduced by a statistically significant reduction of 55% in individuals 70 to 79 years old, and a nonstatistically significant reduction in those 60 to 69 years old (5%) and in those ≥ 80 years old (26%)
- Most common side effects include redness, pain and tenderness, injection-site swelling, itchiness, and headache.



Clinical Aspects of HZ:

- Acute pain of HZ rash persists up to 4 weeks; subacute herpetic neuralgia persists from 30 days to 4 months.
- Rash appears after 5 days and presents as small, red spots that become blisters. Papules develop into vesicles within 1 to 2 days and continue to appear for 3 to 4 days. Lesions of all types may be present and tend to be grouped. Pustulation of vesicles begins within 1 week of the onset of rash and is followed 3 to 5 days later by lesion ulceration and crusting. Crusts usually resolve within 3 to 4 weeks, but scarring and hypo- or hyperpigmentation may persist.³

Treatment Options for HZ^{3,4}:

(Only 3 medications are FDA approved for the treatment of HZ)

Analgesics

- Acetaminophen (Tylenol)
- Nonsteroidal anti-inflammatory drugs (NSAIDs), ibuprofen (Advil)

Anticonvulsants

- Gabapentin (Neurontin), pregabalin (Lyrica)

Antivirals

- Acyclovir (Zovirax)*, valacyclovir (Valtrex)*, famciclovir (Famvir)*

Opioids

- Tramadol (Ultram), oxycodone (OxyContin), fentanyl (Duragesic)

Oral corticosteroids[§]

- Methylprednisolone (Medrol), prednisolone (Deltasone)

Tricyclic antidepressants (TCAs)[†]

- Amitriptyline (Elavil), nortriptyline (Aventyl)

Patient effectively treated; lesions resolve and symptoms subside

Refer to pain specialist if pain relief is inadequate; if not previously vaccinated, consider Zostavax vaccination[¶]

Clinical Aspects of PHN:

- Defined as continuous, chronic pain that persists ≥ 4 months after lesions have resolved. In the worst cases, PHN continues for many years.
- Pain described as “burning,” “shooting,” “stabbing,” or “throbbing.”³
- About 20% of HZ patients ≥ 50 years old develop PHN.⁵
- Pain may be severe in the area where the blisters were present, and affected skin may be very sensitive to heat and cold.

Treatment Options for PHN^{3,4}:

(Only 3 medications are FDA approved for the treatment of PHN)

Anticonvulsants

- Gabapentin (Neurontin)*, phenytoin (Dilantin), carbamazepine (Tegretol), pregabalin (Lyrica)*

Opioids

- Tramadol (Ultram), fentanyl (Duragesic), oxycodone (OxyContin)

Oral corticosteroids[§]

- Methylprednisolone (Medrol), prednisolone (Deltasone)

Other

- Transcutaneous electrical nerve stimulator (TENS)[‡]

TCAs[†]

- Amitriptyline (Elavil), nortriptyline (Aventyl), desipramine (Norpramin)

Topical

- Capsaicin 0.075% (Capsin, Zostrix), Lidocaine Patch 5% (Lidoderm)*

* FDA approved for this indication.

† Titrate dose to maximize benefits without causing unacceptable side effects. Note that adverse effects are a major concern with TCAs, especially in the elderly.

‡ Although often recommended, TENS may be contraindicated in PHN due to concern that if turned up too high and/or left on the trigeminal nerve too long, it may stimulate PHN rather than relieving it.

§ Oral corticosteroids should be initiated only in combination with antiviral therapy.

¶ A single dose of zoster vaccine is recommended for adults ≥ 60 years of age and older whether or not they report a prior episode of herpes zoster. Individuals with chronic medical conditions may be vaccinated unless a contraindication or precaution exists for their condition. http://www.cdc.gov/nip/recs/provisional_rec/zoster-11-20-06.pdf.

1. Zostavax Prescribing Information. Merck & Co Inc. Whitehouse Station, NJ. 2005. Available at: www.merck.com/product/usa/pi_circulars/z/zostavax/zostavax_pi.pdf.

2. Oxman MN, Levin MJ, Johnson GR, et al. A vaccine to prevent herpes zoster and postherpetic neuralgia in older adults. *N Engl J Med*. 2005;352:2271-2284.

3. Dworkin RH, Johnson RW, Breuer J, et al. Recommendations for the management of herpes zoster. *Clin Infect Dis*. 2007;44:S1-S26.

4. Pilot F, Alper BS, Vanderhoff BT. Management of herpes zoster and postherpetic neuralgia. *Am Fam Phys*. Available at: http://www.aafp.org/PreBuilt/afpmonograph_shingles.pdf.

5. Opstelten W, Van Wijck AJ, Van Essen GA, et al. The PINE study: rationale and design of a randomised comparison of epidural injection of local anaesthetics and steroids versus care-as-usual to prevent postherpetic neuralgia in the elderly. *BMC Anesthesiol*. 2004;4:2.