Herpes Zoster (Shingles)

Antivirals within 72 hours · the two sites that need same-day specialist care, and the vaccine that prevents most of it

72 hours
is the window

RECOGNIZE IT *the pain usually arrives before anything is visible*

THE PATTERN

Unilateral, dermatomal, and it does not cross the midline. Grouped vesicles on an erythematous base at varying stages. A **prodrome of burning or stabbing pain for 2 to 3 days** commonly precedes the rash, and is frequently mistaken for renal colic, cholecystitis, angina or sciatica depending on the dermatome.

WHO GETS IT

Reactivation of latent varicella-zoster in a dorsal root ganglion. **Risk rises steeply with age** and with immunosuppression. **Zoster in a young adult should prompt consideration of HIV testing** and a look for other causes of immunosuppression.

INFECTION CONTROL

Vesicle fluid transmits **varicella** (not zoster) to non-immune contacts. **Localized zoster: cover the lesions, standard precautions. Disseminated or immunocompromised: airborne plus contact precautions.** Keep patients away from pregnant and immunocompromised contacts until crusted.

TREATMENT *start within 72 hours of rash onset wherever possible*

Drug	Dose	Notes
Valacyclovir	**1 g orally three times daily for 7 days**	Usually preferred for the simpler schedule and better absorption
Famciclovir	**500 mg orally three times daily for 7 days**	Equivalent alternative
Acyclovir	**800 mg orally five times daily for 7 days**	Cheapest, but the five-times-daily schedule undermines adherence
Severe, disseminated, or immunocompromised	**Acyclovir 10 mg/kg IV every 8 hours**	Step down to oral once improving and lesions stop appearing. **Adjust all of these for renal function**, and hydrate

Still treat after 72 hours if new lesions are appearing, or in ophthalmic disease, disseminated disease or immunosuppression, since ongoing viral replication is what antivirals act on. **Antivirals shorten the illness and reduce acute pain, but do not reliably prevent postherpetic neuralgia**, so do not promise that. **Steroids are not routine**: they may modestly help acute pain but not postherpetic neuralgia, and are reserved for selected cases such as Ramsay Hunt with specialist input.

TWO SITES THAT NEED SAME-DAY SPECIALIST CARE

Site	Recognize and act
⚠ Herpes zoster ophthalmicus *V1 trigeminal*	Rash over the forehead, upper eyelid and around the eye. **Hutchinson sign, vesicles on the tip or side of the nose, indicates nasociliary nerve involvement and predicts ocular disease**, though the eye can be involved without it. Can cause keratitis, uveitis, glaucoma, retinal necrosis and **permanent visual loss**. **Start systemic antivirals and arrange same-day ophthalmology**. Never use topical steroids unsupervised
⚠ Ramsay Hunt syndrome *geniculate ganglion*	**Facial palsy with vesicles in the ear canal or on the pinna**, often with ear pain, hearing loss, tinnitus and vertigo. **Look in the ear of every facial palsy**: it is missed when the rash is not sought and then treated as Bell palsy. **Antivirals plus steroids, started early**, and refer to ENT. Recovery is **worse than in Bell palsy**, which is why prompt recognition matters
Disseminated zoster	**More than about 20 lesions outside the primary and adjacent dermatomes**, or visceral involvement (pneumonitis, hepatitis, encephalitis). Implies significant immunosuppression. **IV therapy and airborne plus contact isolation**
Zoster sine herpete	**Dermatomal pain with no rash at all.** A genuine entity and a common reason zoster is missed, particularly when it presents as chest or abdominal pain
Sacral zoster	S2 to S4 involvement can cause **urinary retention and constipation** from a neurogenic bladder and bowel. Examine the sacral dermatomes in unexplained retention, and warn the patient it can happen
VZV vasculopathy and myelitis	Rare but serious CNS complications, and they can occur **with or without a rash**. Consider VZV in unexplained stroke, myelopathy or meningoencephalitis, particularly if there has been zoster in the preceding weeks or months

Exposure to a patient with zoster matters for the contact, not the patient. A non-immune or immunocompromised contact, a pregnant woman without immunity, or a neonate exposed to vesicle fluid can develop **varicella**. Assess immunity and consider **post-exposure prophylaxis, either varicella-zoster immune globulin or vaccination depending on eligibility and timing**. Ask about household contacts before discharging the patient.

POSTHERPETIC NEURALGIA *the complication that defines the burden of this disease*

WHO IS AT RISK

Pain persisting beyond about **90 days** from rash onset. **Age is the dominant risk factor**, along with **severe acute pain**, a severe rash, and a prodrome of pain before the rash. It is uncommon under 50 and increasingly likely with each decade after.

HOW TO TREAT IT

Gabapentin or pregabalin, or a **tricyclic such as nortriptyline** (preferred over amitriptyline in older patients for anticholinergic burden). **Topical lidocaine 5% patches** for localized pain, and capsaicin as an option. **Start low and titrate**, and set the expectation of reduction rather than abolition.

PREVENT IT INSTEAD

Treating acute pain well may reduce the risk, but **vaccination is the only reliably effective prevention**, which is the argument for the column opposite.

VACCINATION & PEARLS

- **Recombinant zoster vaccine, two doses.** Recommended for **all adults aged 50 and over**, and for **immunocompromised adults aged 19 and over**. The second dose follows the first by **2 to 6 months**, and it is a **non-live** vaccine, so it is safe in immunosuppression, unlike the older live vaccine.
- **Vaccinate even after an episode of shingles**, once the acute episode has resolved, and regardless of a history of chickenpox or of prior live zoster vaccine. Reactivation can recur.
- **Zoster is a stroke risk factor for weeks afterward**, particularly ophthalmic zoster, through VZV vasculopathy. New neurological symptoms after zoster deserve imaging rather than reassurance.
- **Do not diagnose zoster on a rash that crosses the midline or spans several non-contiguous dermatomes** in a well patient. Reconsider contact dermatitis, impetigo or another cause, and in a genuinely disseminated picture look hard for the underlying immunosuppression.

References: CDC and ACIP recommendations for recombinant zoster vaccine · IDSA guidance on varicella-zoster virus infection · standard antiviral and neuropathic pain prescribing references.

Educational aid; verify against current guidance, local formulary and patient factors.