

# Extended Antiviral Treatment Could Benefit Ocular Shingles Vision Outcomes

## Key Takeaways

- Long-term valacyclovir treatment reduces the risk of new or worsening eye disease by 26% in herpes zoster ophthalmicus cases.
- The study showed a 30% decrease in recurring HZO flare-ups with valacyclovir treatment compared to untreated individuals.
- Researchers highlight the importance of vaccination, noting low uptake among adults over 50, despite recommendations.
- Future research will explore antiviral treatment's potential in reducing glaucoma, scleritis, and other ocular complications.

Treatment with valacyclovir for a year decreased the risk of new or worsening eye disease by 26%.

New study findings led by Perelman School of Medicine at the University of Pennsylvania and the NYU Grossman School of Medicine at NYU Langone Health found that treatment with antiviral medication for a year could prevent vision damage that relates to shingles that impacts the eye.

Shingles, medically known as herpes zoster (HZ), arises following the reactivation of the varicella zoster virus (VZV). The virus can reactivate among individuals that previously had VZV, typically appearing as chickenpox, which reactivates as shingles. Individuals with shingles can experience a painful rash in dermatomal distribution which can continue for several weeks. The study authors noted that an estimated 1 in 3 individuals will be diagnosed with shingles during their lifetime.

According to Mayo Clinic, ocular shingles is a form of the disease that can have significant side effects that can cause permanent damage to the vision. The symptoms of ocular shingles include rash, blisters, pink eye, swelling, or blurred vision.

Ocular shingles occurs in around 100,000 of the million individuals that develop shingles annually in the US, starting in the nerve connecting the brain to the eye. Known as herpes zoster ophthalmicus (HZO), the disease can cause keratitis, iritis, and inflammation in parts of the eye. The study authors noted that about 30,000 HZO cases result in an individual's vision declining to 20/60 or worse as 10,000 individuals with HZO experience vision decline to 20/200 or worse.

“Up until now, there has been no proven long-term treatment for new, worsening, or repeated episodes of this disease, so the results of this study provide convincing evidence for using long-term, low-dose antiviral treatment,” Bennie Jeng, MD, chair of ophthalmology at the Perelman School of Medicine at the University of Pennsylvania and the director of the Scheie Eye Institute at Penn Medicine, said in a news release.

Lead researcher Elisabeth J Cohen, MD, a professor of ophthalmology at NYU Grossman School of Medicine and her team conducted the Zoster Eye Disease Study (ZEDS) that evaluated the use of valacyclovir, the antiviral treatment that is used to treat shingles, on its role to aid HZO vision loss. The study was guided for 8 years and included more than 500 individuals that had shingles affecting their eyes from 95 medical centers in the US, Canada, and New Zealand.

Presented at the Cornea and Eye Banking Forum and the American Academy of Ophthalmology's annual meeting, the results found that treatment with valacyclovir for a year decreased the risk of new or worsening eye disease by 26% at 18 months after initial treatment, according to study authors. Additionally, further results found that individuals treated with valacyclovir were 30% less likely to have reoccurring HZO flare-ups at a year or a year and half following treatment compared with individuals that did not receive valacyclovir.

“While our evidence in support of a new treatment regimen is vital, prevention is even more effective than any treatment,” said Cohen in the news release. “The incidences of this are going up in persons in their 50s, and just 12% of that population has received the highly effective zoster vaccine. It has been recommended since 2018 for all adults age 50 and older, and, since 2022, for immunocompromised adults age 19 and older.”

The study authors noted that in the future the researchers will extend the ZEDS researcher to assess if antiviral treatment can also aid reduction in glaucoma, scleritis, and other related complications.

“We hope that our work creates a relatively simple path toward preventing vision changes that can be life-altering,” said Jeng. “With this drug already being part of the regular clinical treatment for shingles, we don’t envision significant barriers to making this a standard of treatment.”

## **REFERENCES**

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