

# Is your doctor prescribing the wrong treatment for pink eye?

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A new study suggests that most people with acute conjunctivitis, or pink eye, are getting the wrong treatment. About 60 percent of patients are prescribed antibiotic eyedrops, even though antibiotics are rarely necessary to treat this common eye infection. About 20 percent receive an antibiotic-steroid eyedrop that can prolong or worsen the infection. The study is now online in *Ophthalmology*, the journal of the American Academy of Ophthalmology. This is the first study to assess antibiotic use for pink eye in a large, diverse segment of the United States. The findings are consistent with a nationwide trend of antibiotic misuse for common viral or mild bacterial conditions. It's a trend that increases costs to patients and the health care system and may promote antibiotic resistance.

Researchers at the University of Michigan Kellogg Eye Center looked at data from a large managed care network in the United States. They identified the number of patients who filled antibiotic eyedrop prescriptions for acute conjunctivitis. Then they evaluated the characteristics of patients who filled a prescription compared with those who did not. Of approximately 300,000 patients diagnosed with acute conjunctivitis over a 14-year period, 58 percent filled a prescription for antibiotic eye drops. Among them, 20 percent filled a prescription for an antibiotic-steroid combination. Antibiotic-steroid drops are inappropriate for most patients with acute conjunctivitis because it may prolong or exacerbate certain types of viral infection.

Even more troubling, the authors found that the odds of filling a prescription depended more on a patient's socioeconomic status than the patient's risk for developing a more serious eye infection. For example, patients who wear contact lenses and those diagnosed with HIV/AIDS.

Pink eye affects 6 million people in the United States each year. There are three types: viral, bacterial, and allergic conjunctivitis. Antibiotics are

rarely necessary to treat acute conjunctivitis. Most cases are caused by viral infections or allergies and do not respond to [antibiotics](#). Antibiotics are often unnecessary for bacterial conjunctivitis because most cases are mild and would resolve on their own within 7 to 14 days without treatment.

The study also found:

- Primary [care providers](#) (family physicians, pediatricians, internal medicine physicians, and urgent care providers) diagnose a majority (83%) of patients. Only a minority were diagnosed by eye care providers such as ophthalmologists or optometrists.
- Patients diagnosed by a primary care or urgent care provider were two to three times more likely to fill prescriptions for [antibiotic eye drops](#) than patients diagnosed by an ophthalmologist.
- Patients who filled antibiotic prescriptions were significantly more likely to be white, younger, better educated, and more affluent than [patients](#) who did not fill [prescriptions](#).

"This study opens the lid on overprescribing of antibiotics for a common eye infection," said lead author Nakul S. Shekhawat, M.D., M.P.H. "It shows that current treatment decisions for [pink eye](#) are not based on evidence, but are often driven more by the type of health care practitioner making the diagnosis and the patient's socioeconomic status than by medical reasons. The potential negative consequences are difficult to justify as we move toward focusing on value in health care."

The authors say there are several reasons why antibiotics are over prescribed. It is a challenge to differentiate bacterial conjunctivitis from the viral and allergic forms. All three types may have overlapping features, such as a red eye, thin discharge, irritation, and sensitivity to light. Health care providers may tend to "err on the side of caution" and prescribe antibiotics "just in case."

Patients are often unaware of the harmful effects of antibiotics and may falsely believe that antibiotics are necessary for the [infection](#) to resolve.

The American Academy of Ophthalmology has issued guidance to the medical community on treatment for pink eye. The Academy tells [health care](#) providers to avoid prescribing antibiotics for viral conditions and to delay immediate treatment when the cause of conjunctivitis is unknown.

Provided by American Academy of Ophthalmology

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