

# Immunosuppressant medication may be cost-effective for dry eye syndrome

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A topical eye emulsion consisting of cyclosporine (a medication used to reduce transplant rejections or to treat arthritis and psoriasis) may be a cost-effective treatment for dry eye syndrome that does not respond to other therapies, according to a report in the February issue of *Archives of Ophthalmology*.

Published reports suggest that the prevalence of dry eye syndrome in older patients ranges from about 15 percent to 34 percent, according to background information in the article. "Patients with dry eye syndrome have more difficulty reading, carrying out professional work, using a computer, watching television and driving compared with those without dry eyes," the authors write. "The burden of dry eye disease from both the prevalence and patient morbidity standpoints makes this a sizeable public health dilemma."

Using data from two randomized clinical trials and Food and Drug Administration files, Melissa M. Brown, M.D., M.N., M.B.A., of the Center for Value-Based Medicine, Flourtown, and the University of Pennsylvania School of Medicine, Philadelphia, and colleagues assessed the comparative effectiveness and cost-effectiveness of eye drops containing a 0.05 percent emulsion of the drug cyclosporine for patients whose moderate to severe dry eye syndrome did not respond to conventional therapy.

When compared with eye drops containing only lubricant, the cyclosporine drops were associated with a 4.3 percent improvement in

quality of life, and conferred a 7.1 percent improvement over no treatment. The total direct medical cost associated with the use of this drug was \$1,834; however, because 24.5 percent of treated workers will return to full productivity as a result, there is an estimated \$1,236 gain associated with treatment, reducing the net cost to \$598.

Based on the authors' analysis, the cost to society for treatment with this medication was \$34,953 more per quality-adjusted life year (a measure combining the quality and quantity of life) than the lubricant eye drops alone. This is well below the conventional standard of \$50,000 per quality-adjusted life year that most would consider cost-effective, they note.

More info: *Arch Ophthalmol.* 2009;127[2]:146-152.

Source: JAMA and Archives Journals

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