

# Fifteen Minute Test May Save 15% or More on Rosacea Treatment

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## ABSTRACT

Rosacea is a common inflammatory skin condition that impacts a large portion of fair-skinned populations. The redness associated with rosacea can be a significant challenge. Brimonidine sulfate and oxymetazoline HCL were both recently approved by the FDA for the management of facial redness. These agents, however, are costly, and not all patients respond to the medication. Herein, we describe a clinical pearl that helps to optimize patient selection for the medications. This saves the patient and the health care system both time and money.

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## Clinical Challenge

Rosacea is a common chronic inflammatory skin condition that impacts 2-22% of fair-skinned populations.<sup>1</sup> There are four clinical subtypes of rosacea: erythematotelangiectatic, papulopustular, phymatous, and ocular.<sup>2</sup> However, most patients present with the morphologic characteristics of multiple subtypes, and in clinical practice facial erythema is common amongst all subtypes. This facial redness can be a significant challenge. Survey data indicate that the adverse impact of rosacea on quality of life increases with the severity of facial erythema.<sup>3</sup> Recently, two new medications, brimonidine sulfate 0.33% and oxymetazoline HCL 1%, were approved by the FDA in 2014 and 2017 respectively for management of facial redness. Both medications act as vasoconstrictors: brimonidine acts as an alpha-2 agonist, while oxymetazoline is an alpha-1a agonist.<sup>4,5</sup> These agents, while beneficial to many patients, are limited by a variable patient response rate, cost, and varied insurance coverage.<sup>2</sup> One 30 g tube of oxymetazoline HCL may

cost patients over \$570, and a 30g tube of brimonidine may cost about \$494.<sup>4</sup> Despite these costs, many patients are nonresponders to the medication and do not demonstrate a significant improvement.<sup>5-7</sup> These facts may lead to frustration for the physician and the patient who may be paying for an expensive medication only to quickly find out it is unsatisfactory.

## Solution

In our clinic, we leverage the short acting time of these agents and the evident clinical outcome for better patient selection. Brimonidine acts within 30 minutes of application, and while the effect time of oxymetazoline in rosacea is not well described, our clinical experience indicates a similar time to effect.<sup>4,6,8</sup> While the patient is in clinic and after discussion of the medications' benefits, adverse effects and alternatives, we apply a small amount of brimonidine sulfate to one cheek, and oxymetazoline HCL to the other (Figure 1; Figure 2). The patient

**FIGURE 1.** (A) The patient at presentation before application of medications (B) 15 minutes following application of oxymetazoline HCL to right cheek, a lighter patch is evident (C) 15 minutes following application of brimonidine sulfate to left cheek, no lighter patch was appreciated.



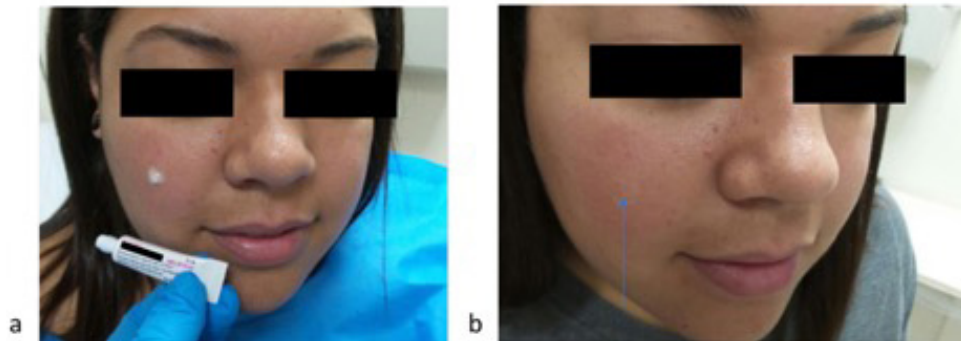
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**FIGURE 2.** (A) The patient at application of brimonidine sulfate to the right cheek (B) a lighter patch is present after 15 minutes of treatment in clinic.



is then allowed to sit with the medication in clinic for 15 to 30 minutes. After this short incubation, clinical response is typically evident as a lighter patch in the area of application. We do not need to wait for a full response, as the goal of this test is not to determine which medication the patient will have the greater response with, but rather whether or not the patient will have *any* response to either medication. The patient can then decide if they are happy with the response and a relevant prescription is offered. Treatment of the erythema associated with rosacea is largely directed at quality of life improvement and this pearl targets this goal by saving patients time and money as they can potentially avoid an ineffective medication and get an idea of what their skin will look like treated. Furthermore, in our anecdotal experience this test leads to improved adherence and patient satisfaction as the patients are aware of their own response to the treatments.

## DISCLOSURES

The authors have no conflicts of interest to report.

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