

# Harnessing the Benefits of Topical Benzoyl Peroxide in Acne Care

From providing cost-savings to limiting development of antibiotic resistance, OTC benzoyl peroxide formulations may warrant more consideration.

By Paul Winnington, Editor-in-Chief

As politicians, pundits, consumer activists, and others continue to take aim at prescription drug costs, physicians are under pressure to identify effective, low-cost regimens that will fit the bill for patients with inadequate insurance coverage or who otherwise can't afford multiple prescription agents. When it comes to management of mild to moderate facial acne vulgaris, topical benzoyl-peroxide 2.5 to 5%—an old, relatively inexpensive, over-the-counter standby—may be a suitable alternative or a worthwhile element of the treatment approach for some patients.

In a recent study published in *Lancet*,<sup>1</sup> “Benzoyl peroxide was no less effective than any of the other regimes that we used. It was, however, the most cost-effective regime,” says co-author Professor Tony Avery of Queen's Medical Centre, Nottingham, UK.

The community-based trial involved 649 participants who had stopped their existing acne treatments at least four weeks before the start of the study. Patients were randomized to receive either oral oxytetracycline plus topical placebo, oral minocycline plus topical placebo, topical benzoyl peroxide plus oral placebo, topical erythromycin and benzoyl peroxide in a combination formulation plus oral placebo, or topical benzoyl peroxide and topical erythromycin separately plus oral placebo.

On self-assessment after 18 weeks of treatment, 60 percent of patients rated themselves as having at least moderate

improvement in acne (high quality baseline photographs were available to aid assessment). Plus, “there was a decrease in inflamed lesions from a mean of 52 per patient to 23 per patient,” Dr. Avery notes. “To reduce bias all patients were included in these figures, whether or not they actually took the treatment.”

Trial co-ordinator and co-author Mara Ozolins points out that the study did not investigate other classes of acne medications, such as retinoids. She urges further studies.

## Take-Home Points

While dermatologists have long included benzoyl peroxide in their topical acne regimens, many have relied heavily on prescription formulations of benzoyl peroxide or on combination formulations of antibiotics and benzoyl peroxide, but the study suggests that the oft-dismissed over-the-counter formulations of benzoyl peroxide alone may have value.

Dr. Avery offers the following key “take home” points from the study:

- At least moderate improvement was seen for all of the treatments tested.

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- The greatest level of improvement occurred in the first six weeks of treatment.

- There were relatively few statistically significant differences in effectiveness among the five regimes tested. In particular, benzoyl peroxide was not inferior to

the other treatments, and oral minocycline was no better than oral oxytetracycline.

- Benzoyl peroxide was the most cost-effective treatment and was 12 times more cost-effective than minocycline.

- The use of topical benzoyl peroxide and topical erythromycin applied separately was twice as cost effective as a product containing both drugs together.

- Prior colonization with propionibacteria that were resistant to tetracyclines lowered the proportion of treatment responses to minocycline and oxytetracycline, thus demonstrating the problems of antibiotic resistance.

## How to Use Benzoyl Peroxide

After multiple years of use, over-the-

counter acne products haven't emerged as a panacea for acne. In fact, many patients present to dermatologists having failed these widely-available, less expensive agents, which can be irritating for some patients and simply aren't intended to treat more severe cases of acne. Therefore, prescription agents remain important. Devising the right treatment strategy and combination approach is key to successful treatment.

**Consider Background Treatment.** "I think our findings are of particular relevance to patients with no or poor prescription insurance. In these patients (and others) a strong argument can be made for using benzoyl peroxide as a 'background treatment' and using short courses of prescription medication in an attempt to control flare-ups," Dr. Avery says, noting that this assessment goes beyond the scope of the current study.

**Split Them Up.** Two-in-one combination topical formulations of benzoyl peroxide and antibiotics provide documented efficacy and offer compliance-boosting convenience. A once-a-day formulation of clindamycin/benzoyl peroxide is an attractive option for both teen and adult patients. But the study found that separate application of OTC-strength topical benzoyl peroxide and a prescription topical antibiotic provided similar efficacy at lower cost—a point worth considering if affordability trumps convenience as a patient concern.

**Keep it Low.** Dr. Avery reminds, "When using benzoyl peroxide, it is extremely important that patients are counseled properly to minimize the risks that they might withdraw from treatments as a result of side effects." For example, Dr. Avery says, use strengths of 5% or less. Plus, he adds, previous studies show that there is no additional benefit to using 10% BP and that these preparations simply increase the risk of side effects.

**Minimize Side-Effects.** Additionally, patients should use topical benzoyl peroxide sparingly, particularly at therapy initiation, gradually applying more over time, Dr. Avery suggests. Use of moisturizers can minimize complaints of dry or irritated skin, he adds.

### Resistance and Solutions

Dr. Avery notes that his study's findings can help bolster a growing trend to minimize use of antibiotic regimens. Expanding beyond the strict scope of his study, he says, "Given the problems of antibiotic resistance, and the fact that antibiotics were not superior to benzoyl peroxide in our trial, I believe that there are strong arguments for try-

ing to use not antibiotic regimes whenever possible in the treatment of mild to moderate facial acne."

While his team did not test other "non-antibiotic" regimens, he points out that there is evidence from other randomized controlled trials that topical isotretinoin and topical azelaic acid are effective for mild to moderate facial acne. "These are preparations that may be worth trying before considering antibiotic treatments," he says. ■

1. Ozolins M, Eady EA, Avery AJ, Cunliffe WJ, Li Wan Po A, O'Neill C, Simpson NB, Walters CE, Carnegie E, Lewis JB, Dada J, Haynes M, Williams K, Williams HC. Comparison of five antimicrobial regimens for treatment of mild to moderate inflammatory facial acne vulgaris in the community: randomised controlled trial. *Lancet*. 2004 Dec 18;364(9452):2188-95.

## New in Your Practice

**Redness Relief.** Rosacea patients looking for a regimen that meets both their skin care and cosmetic needs may be interested in the new licochalcone-based Eucerin Redness Relief skin care system. The system's four-step regimen—Soothing Cleanser, Daily Perfecting Lotion SPF15, Tone Perfecting Creme, and Soothing Night Creme—provides redness relief and improves skin condition over a four-week period, says the manufacturer. The Daily Perfecting Lotion SPF15 and Tone Perfecting Creme are both formulated with green color neutralizers to help conceal redness; all products are fragrance- and oil-free, non-irritating, and non-comedogenic. The Eucerin Redness Relief system will be available in select stores next month.



Patient shown before and after treatment with the Eucerin Redness Relief skin care system.

**Looking Ahead.** A confirmatory Phase III clinical trial for Sebazole (ketoconazole 2%) suggests this once-a-day steroid-free agent may soon become a treatment option for your seborrheic dermatitis patients, Barrier Therapeutics says. Of the 459 patients who participated in the multi-center trial, 25.8 percent of 229 patients treated with Sebazole for two weeks were "completely clear" or "almost clear" at day 28, compared to 13.9 percent of 230 patients treated with the vehicle. Barrier Therapeutics plans to submit a NDA by mid-2005.