

# New Acne Recommendations Stress Combo Tx

BY MIRIAM E. TUCKER  
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Management of acne should involve combined treatment that targets as many of the underlying pathogenic factors as possible, according to new expert committee recommendations from the American Academy of Pediatrics.

The new document is adapted from a 2003 consensus report issued by an international group of dermatologists called the Global Alliance to Improve Outcomes in Acne. Their recommendations were based on evidence whenever possible, but also included expert opinion based on clinical experience (J. Am. Acad. Dermatol. 2003;49[suppl. 1]:S1-37).

That report was never published in the pediatric literature. The new AAP statement, which also includes data from articles published since 2003, "is essentially a reworking of the information for pediatricians," said lead author Dr. Andrea L. Zaenglein, of the departments of dermatology and pediatrics at Pennsylvania State University, Hershey, in an interview.

Three basic principles underlie the recommendations, which were supported by an unrestricted educational grant from Galderma Laboratories L.P. (Pediatrics 2006 [Epub doi.10.1542/peds.2005-2022]):

- ▶ A topical retinoid should be the foundation of treatment for most patients with acne. Retinoids target the microcomedo, the precursor to all lesions. They are also comedolytic and have intrinsic anti-inflammatory effects, thus targeting two pathogenic factors in acne.

- ▶ Combining a topical retinoid with an antimicrobial agent targets three pathogenic factors. Clinical trials have shown that combination therapy results in significantly faster and greater clearing, as opposed to antimicrobial therapy alone.



For cases of inflammatory acne, shown here, topical antibiotics are indicated.

COURTESY DR. ALAN SHALITA

- ▶ Oral antibiotics should be used only in moderate to severe acne and should not be used as monotherapy. They should be discontinued as soon as possible, usually within 8-12 weeks.

Depending on the degree of inflammation, topical retinoids may be used alone (when comedones predominate), or with an antimicrobial agent. Female patients also may benefit from hormonal therapy with oral contraceptives.

For severe acne, treatment with oral isotretinoin is recommended. Isotretinoin therapy should also be considered for cases of acne refractory to conventional therapy with a topical retinoid, benzoyl peroxide, and oral antibiotic therapy, Dr. Zaenglein and her associates said.

The central role of topical retinoids in treating both comedonal and inflammatory acne was new in the 2003 document. Before that, topical retinoids had been reserved primarily for patients with comedonal acne, the authors noted.

Because topical retinoids may cause burning and irritation, particularly during the early weeks of therapy, it's important to ask patients about the products they've tried

previously and how well those were tolerated. The vehicle must be considered in the selection of a retinoid because some are more irritating than others. Alcohol-based gels are generally more irritating than are cream-based products, for example.

Educating the patient about starting off slowly—such as every second or third day—and using the medication for a shorter duration of contact (for example, by washing it off after a period of time) may improve compliance. Patients also should be warned not to use any concurrent over-the-counter medications, such as salicylic acid scrubs or astringents, which can increase irritation when used with a retinoid.

The three topical retinoids currently approved for use in the United States—tretinoin, adapalene, and tazarotene—decrease formation of microcomedos and subsequent acne lesions. The main difference is in cutaneous tolerability, which can vary among formulations. The document outlines the clinical data on each product.

Combination therapy—including a topical retinoid with either a topical or an oral antibiotic and benzoyl peroxide—is considered the standard of care for the majority of acne patients. Benefits include targeting different pathophysiologic factors, such as abnormal desquamation, proliferation of *Propionibacterium acnes*, and inflammation; increasing efficacy; improving the speed of lesion resolution; and minimizing the potential for antibiotic resistance, the authors said.

Antimicrobials were long considered a mainstay in the treatment of acne vulgaris. Now, in a climate of increasing antibiotic resistance, they are recommended as adjunctive rather than primary acne treatment. Topical antibiotics are indicated for mild inflammatory acne. They are typically well tolerated apart from occasional mild cutaneous irritation and burning. The topical macrolides erythromycin and

clindamycin may be used alone or in combination with benzoyl peroxide.

Benzoyl peroxide is the most potent topical antimicrobial, with rapid bactericidal action. It is effective when used alone or combined with other antibiotics. It is available in many different formulations, including soaps, washes, creams, gels, and lotions, in concentrations of 1%-10%. Skin irritation is a common side effect, but it generally improves with time, they said.

Oral antibiotics should be reserved for patients with moderate to severe inflammatory acne. Tetracycline and the tetracycline derivatives doxycycline and minocycline are the most common agents; alternative choices include macrolides, cotrimoxazole, and trimethoprim. After improvement is noted, the oral antibiotic should be discontinued as soon as possible. If no improvement is seen within 8-16 weeks of initiation, a change in antibiotic is warranted because resistance is likely. When the patients stop oral therapy, they should continue with topical retinoid therapy to maintain improvement.

Oral contraceptives and spironolactone may be good options for managing acne in females who have sudden onset of severe acne, who have not responded to conventional first-line therapy, or who have persistent inflammatory papules and nodules involving primarily the lower face and neck. Hormonal therapies may be especially beneficial in female patients with hyperandrogenism, a need for birth control, or irregular menses.

Maintenance therapy should be initiated once clinical improvement is achieved, particularly in the young teenager in whom acne is likely to recur. Counseling is essential to the management of patients with acne, including assessing any adverse psychological effects of the condition, and dispelling myths (such as an acne-chocolate link), the authors advised. ■

## Antibiotics Prescribed for Acne May Double the Risk of URIs

BY ERIK GOLDMAN  
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PHILADELPHIA — Long-term antibiotic therapy for patients with acne induces complex immunologic and microbial changes that can have surprising clinical consequences not only for the patients but also for their close contacts, Whitney P. Bowe reported at the annual meeting of the Society for Investigative Dermatology.

For the last few years, researchers at the University of Pennsylvania, under the direction of Dr. David Margolis, have been exploring the microbial ecology of acne patients and the ways in which it is affected by antibiotic treatment.

They have discovered several phenomena. For one, acne patients on antibiotics are twice as likely to develop upper respira-

tory tract infections (URIs) than are those not treated. They are also three times more likely to carry group A streptococci in the oropharynx.

Some investigators have suggested that close contacts of antibiotic-treated acne patients may also be at increased risk for infectious conditions. Dr. Margolis' team recently completed a study that examined this conjecture. Ms. Bowe, a medical student and member of Dr. Margolis' research team, presented the findings in a poster.

The team analyzed data from the General Practice Research Database, which is an ongoing United Kingdom registry, and they determined rates of URIs among household contacts of acne patients.

They obtained data on 81,480 contacts of acne patients without URIs and 16,614 contacts of

patients who did have URIs. The two cohorts were nearly equivalent in terms of their age (mean of 37 years) and sex (about 50% male).

Not surprisingly, the contacts of acne patients with URIs were more likely to have URIs themselves. Just over 6% of those in contact with a URI-affected acne patient also had a URI, compared with only 4% among the contacts of URI-free patients. Though the absolute numbers were small, the difference was statistically significant. The adjusted odds ratio for URI was 1.44 for close contacts of individuals with acne and URIs, meaning that close contacts of individuals with acne and URIs have a 44% increased risk of having a URI themselves.

The important question, said Ms. Bowe, is whether antibiotic therapy had any influence on

this. "Some researchers have postulated that antibiotic exposure of any individual may affect the infectious illnesses of everyone in a group. One of our goals was to determine which factor plays more of a role in predicting URI in a household contact: exposure to an acne patient with a symptomatic URI or exposure to an acne patient on antibiotics."

The answer proved clearly to be the former. The odds ratio for having a URI was 0.94 in household contacts of antibiotic-treated acne patients who did not have a URI and 0.71 in contacts of acne patients who had URIs and took antibiotics.

Contrary to some researchers' expectations, frequent exposure to an antibiotic-using acne patient seems to lower rather than raise the risk of URI among household contacts.

Whereas ongoing antibiotic

therapy appears to increase the chances that an acne patient will develop a URI, the development of similar infections in household contacts is most likely owing to direct transmission of the pathogen and not to any increased susceptibility related to the patient's antibiotic use, as some have hypothesized.

"Although acne patients on antibiotics are about two times more likely to develop URIs, they appear to be less likely to transmit these URIs to their household contacts," commented Ms. Bowe. "While this is reassuring from a public health perspective, the finding likely supports the hypothesis that acne antibiotics are immunomodulatory, predisposing acne patients to infections from pathogens that are not virulent enough to cause infection in fully immunocompetent hosts." ■