

Topical combination products for facial acne

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Clinical question

How effective are topical combination products for moderate facial acne?

Bottom line

For patients using combination products (benzoyl peroxide with either adapalene or clindamycin), 40% to 50% perceive complete or nearly complete improvement in their acne, compared with 30% to 40% using individual products and 20% to 30% using placebo.

Evidence

This meta-analysis focused on RCTs with patient-reported outcomes. Patients had mostly moderate facial acne. Results were statistically significant unless noted.

- Two RCTs (2187 patients) compared daily 2.5% benzoyl peroxide–0.1% adapalene with individual components or vehicle (placebo).^{1,2} At 12 weeks:
 - Rates of marked or complete improvement: combination 48%, adapalene 42%, benzoyl peroxide 37%, and vehicle 27%. Numbers needed to treat (NNTs): 17, 10, and 5, respectively.
 - Rates of local adverse events (AEs) (eg, stinging, erythema, dryness, scaling): combination 27%, adapalene 19%, benzoyl peroxide 11%, and vehicle 8%. Numbers needed to harm: 13, 7, and 6, respectively. The AEs were mostly transient and typically worse in the first 2 weeks.
- Two RCTs (3311 patients) compared daily benzoyl peroxide (varying concentrations)–1.2% clindamycin with individual components or vehicle.^{3,4} At 12 weeks:
 - Rates of clear or almost clear skin: combination 38%, clindamycin 30%, benzoyl peroxide 30%, and vehicle 17% (NNTs: 12, 12, and 5, respectively).
 - There were no differences in AEs.
- Limitation: No trials were clearly publicly funded.

Context

- Topical retinoids and benzoyl peroxide (alone or combined with each other or with topical antibiotics) are first-line treatments for mild papulopustular facial acne.⁵ Oral contraceptives, antibiotics, and isotretinoin are second-line treatments or are used for severe acne.⁵
- No RCTs with patient-reported outcomes were found for the combination of clindamycin–tretinoin.
- Different concentrations of benzoyl peroxide have similar effectiveness and tolerability.⁶

- Estimated costs for 90 days (once-daily application)^{7,8}: 5% benzoyl peroxide, \$35; 0.025% tretinoin cream, \$50; 5% benzoyl peroxide–1% clindamycin, \$100 to \$120; 2.5% benzoyl peroxide–0.1% adapalene, \$220; and adapalene 0.1% cream or 0.3% gel, \$300 to \$340.

Implementation

Despite the lack of conclusive evidence,⁹ many patients believe their acne is related to diet, lack of face washing, or sun exposure.¹⁰ Topical combination products should be trialed for 2 to 3 months before trying other treatments.⁵ Women of reproductive age with severe acne (or failure of topical products) should be counseled about the teratogenic and other potential risks of isotretinoin and tetracycline antibiotics before use. Lower-dose oral isotretinoin options (eg, 20 mg/d) may help minimize AEs.¹¹

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Competing interests
None declared

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