



## Clearing up the evidence for topical acne combination products

### CLINICAL QUESTION

**How effective are topical combination products for moderate facial acne?**

### BOTTOM LINE

**For patients using combination products, including benzoyl peroxide/adapalene and benzoyl peroxide/clindamycin, about 40-50% will perceive complete or near complete improvement in their acne, compared to 30-40% using individual products, and 20-30% using vehicle. No direct head-to-head trials with patient reported outcomes exist between combination products. Cost may influence product choice.**

### EVIDENCE

- Focused on randomized, controlled trials (RCTs) with similar patient reported outcomes. Patients had mostly moderate facial acne. Outcomes meta-analyzed by TFP authors.
- Benzoyl peroxide/adapalene (Tactupump®):
  - 2 RCTs,<sup>1,2</sup> 2187 patients; benzoyl peroxide 2.5%/adapalene 0.1% daily versus individual components or vehicle. At 12 weeks:
    - Marked or complete improvement:
      - Combination 48% versus adapalene 42%, benzoyl peroxide 37%, vehicle 27%. Numbers needed to treat (NNT): 17, 10, 5, respectively.
    - Local adverse events (most commonly stinging, erythema, dryness, scaling):

- Combination 27% versus adapalene 19%, benzoyl peroxide 11%, vehicle 8%. Numbers needed to harm (NNH)=13, 7, 6, respectively.
  - Mostly transient and worse in first two weeks.
- Benzoyl peroxide/clindamycin (Clindoxyl®, Benzaclin®):
  - 2 RCTs,<sup>3,4</sup> 3311 patients; benzoyl peroxide (varying concentrations)/clindamycin 1.2% daily versus individual components or vehicle. At 12 weeks:
    - Clear or almost clear skin:
      - Combination ~38%, clindamycin 30%, benzoyl peroxide 30%, vehicle 17%. NNTs 12, 12, 5, respectively.
    - Adverse events: No difference.
- Limitations:
  - No trials clearly publicly funded.

## CONTEXT

- Topical retinoids and benzoyl peroxide (alone or combined with adapalene or clindamycin) are first line for mild papulopustular facial acne.<sup>5</sup>
  - Oral contraceptives, antibiotics, and isotretinoin are recommended for failure of above or severe acne.<sup>5</sup>
- Clindamycin/tretinoin (Biacna®): no RCTs with patient reported outcomes found.
- Different concentrations of benzoyl peroxide have similar effectiveness/tolerability.<sup>6</sup>
- Estimated costs for 90 days (once daily application):<sup>7,8</sup>
  - Benzoyl peroxide 5% (Benzagel®): \$35
  - Tretinoin 0.025% cream (Stieva-A Cream®): \$50
  - Benzoyl peroxide 5%/clindamycin 1% (Benzaclin®, Clindoxyl®): \$100-120
  - Benzoyl peroxide 2.5%/adapalene 0.1% (Tactupump®): \$220
    - Adapalene 0.1% cream, 0.3% gel (Differin®): \$300-340

---

## REFERENCES

1. Gollnick HP, Draelos Z, Glenn MJ, *et al.* Brit J Derm. 2009; 161(5):1180-9.
2. Thiboutot DM, Weiss J, Bucko A, *et al.* J Am Acad Derm. 2007; 57(5):791-9.
3. Pariser DM, Rich P, Cook-Bolden FE, *et al.* J Drugs Derm. 2014; 13(9):611-7.
4. Thiboutot D, Zaenglein A, Weiss J, *et al.* J Am Acad Derm. 2008; 59(5):792-800.
5. Asai Y, Baibergenova A, Dutil M, *et al.* CMAJ. 2016; 188(2):118-26.
6. Yang Z, Zhang Y, Mosler EL, *et al.* Cochrane Database Syst Rev. 2020; 3(3):CD011154.
7. Interactive Drug Benefit List [website]. Edmonton, AB: Government of Alberta; 2020. Available from: <https://idbl.ab.bluecross.ca/idbl/load.do>. Accessed 2020 Nov 12.
8. Products and Pricing on the Alberta Blue Cross Drug Price List (ABCDPL) [website]. Edmonton, AB: Government of Alberta; Effective November 13, 2020. Available from: [https://www.ab.bluecross.ca/dbl/pdfs/ABCDPL\\_2020\\_11\\_03.xlsx](https://www.ab.bluecross.ca/dbl/pdfs/ABCDPL_2020_11_03.xlsx). Accessed on 2020 Nov 12.

## AUTHORS

**Paul Fritsch MD**  
CCFP, **Stacy Jardine,**  
BScPharm, **Michael**  
**R. Kolber, MD CCFP**  
MSc

*Authors do not have  
any conflicts of  
interest to declare.*