Halobetasol 0.01%/Tazarotene 0.045% (HP/TAZ) Lotion for the Treatment of Plaque Psoriasis in Patients With 3-5% Body Surface Area

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SYNOPSIS

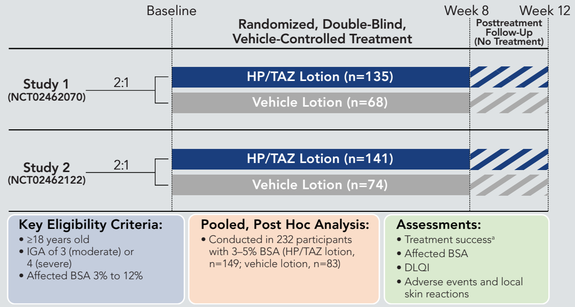
- In the treatment of psoriasis, combining tazarotene (TAZ) with a potent topical steroid, such as the superpotent corticosteroid halobetasol propionate (HP), is recommended for patients with mild-to-moderate disease[1]
- The TAZ + HP combination may provide synergistic efficacy, increase the duration of treatment effect and time of remission, and reduce side effects of both HP and TAZ[1-3]
- Topical psoriasis therapy has also been recommended for patients with lower levels of body surface area (BSA) involvement[4]; though these patients may be deemed more "mild," they may nonetheless have disease characteristics that severely impact their quality of life (QoL)
- A once-daily, fixed combination HP 0.01%/TAZ 0.045% lotion (Duobrii,® Ortho Dermatologics) was developed to address these unmet needs in the topical treatment of psoriasis

OBJECTIVE

- To evaluate the efficacy, impact on QoL, and safety of HP 0.01%/TAZ 0.045% lotion versus vehicle in patients with lower levels of BSA involvement (3–5%) at baseline

METHODS

FIGURE 1. **Phase 3, Randomized, Double-Blind, Vehicle Controlled Studies of Halobetasol Propionate 0.01%/Tazarotene 0.045% Lotion[5,6]**



[a]Defined as percentage of participants achieving ≥2-grade reduction from baseline in IGA and a score of 'clear' (0) or 'almost clear' (1).
In these studies, CeraVe® hydrating cleanser and CeraVe® moisturizing lotion (L'Oreal, NY) were provided as needed for optimal moisturization/cleaning of the skin.
BSA, body surface area; DLQI, Dermatology Life Quality Index; HP/TAZ, halobetasol propionate 0.01% and tazarotene 0.045%; IGA, Investigator's Global Assessment; ITT, intent to treat.

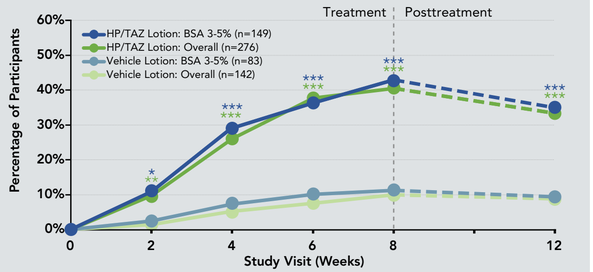
RESULTS

Demographics and Baseline Characteristics

- A total of 418 participants were included in the overall study population (baseline BSA of 3–12%; mean: 5.9%); of these participants, 232 (55.5%) had baseline BSA of 3–5% (mean: 3.8%)
- Participant demographics (age, sex, race) were similar between groups, though a higher proportion of participants with 3–5% BSA had a baseline Investigator's Global Assessment (IGA) score of 3 (moderate; 91.8%) versus the overall population (85.2%)

Efficacy and Quality of Life

FIGURE 2. **Treatment Success[a] in 3–5% BSA Subgroup and Overall Population[b] (ITT Population, Pooled)**

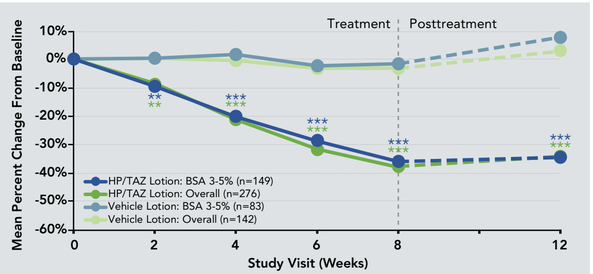


HP/TAZ Lotion:
- Significantly superior to vehicle at all study visits
- Over 40% of participants achieved treatment success at week 8

Maintenance of effect:
- Statistical superiority maintained 4 weeks posttreatment
- Of the participants that achieved treatment success at week 8, most maintained success at week 12
  - 3–5% BSA: 63.3% maintained
  - Overall: 62.4% maintained

*P<0.05 vs vehicle; **P<0.01 vs vehicle; ***P<0.001 vs vehicle.
[a]Defined as percentage of participants achieving ≥2-grade reduction from baseline IGA and a score of 'clear' (0) or 'almost clear' (1).
[b]Overall population had baseline BSA ranging from 3 to 12%.
BSA, body surface area; HP/TAZ, halobetasol propionate 0.01% and tazarotene 0.045%; IGA, Investigator's Global Assessment; ITT, intent to treat.

FIGURE 3. **BSA Reduction in 3–5% BSA Subgroup and Overall Population[a] (ITT Population, Pooled)**

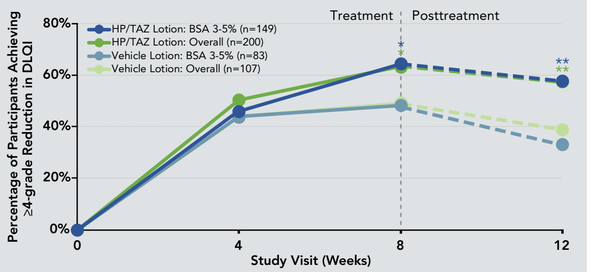


HP/TAZ Lotion:
- Significantly superior to vehicle at all study visits
- Over 35% reduction in BSA from baseline to week 8

Maintenance of effect:
- Statistical superiority maintained 4 weeks posttreatment

**P<0.01 vs vehicle; ***P<0.001 vs vehicle.
[a]Overall population had baseline BSA ranging from 3 to 12%.
BSA, body surface area; HP/TAZ, halobetasol propionate 0.01% and tazarotene 0.045%; ITT, intent to treat.

FIGURE 4. **Clinically Meaningful Improvement in Quality of Life[a] in 3–5% BSA Subgroup and Overall Population[b] (ITT Population, Pooled)**

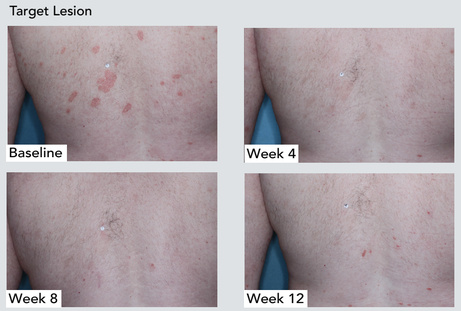


HP/TAZ Lotion:
- Significantly superior to vehicle at week 8 in improving quality of life

Maintenance of effect:
- Statistical superiority maintained 4 weeks posttreatment

*P<0.05 vs vehicle; **P<0.01 vs vehicle.
[a]Defined as ≥4-point reduction (improvement) in DLQI Score[7].
[b]Overall population had baseline BSA ranging from 3 to 12%.
Total DLQI score ranges from 0–30, with higher scores indicating worse quality of life. N values shown for baseline.
BSA, body surface area; DLQI, Dermatology Life Quality Index; HP/TAZ, halobetasol propionate 0.01% and tazarotene 0.045%; ITT, intent to treat.

FIGURE 5. **Improvement of Psoriasis With Once-Daily HP/TAZ Lotion**



This figure shows representative images from a single participant (target lesion on upper back).
Participant BSA: baseline, 3%; weeks 4, 8, and 12, 1%.
Participant IGA: baseline, 3 (moderate); weeks 4, 8, and 12, 1 (almost clear).
Participant DLQI: baseline, 5; week 4, 0; week 8, 1; week 12, 0.
BSA, body surface area; DLQI, Dermatology Life Quality Index; HP/TAZ, halobetasol propionate 0.01% and tazarotene 0.045%; IGA, Investigator's Global Assessment.

Adverse Events

- Incidence of treatment-emergent adverse events (TEAEs) with HP/TAZ was similar between the BSA 3–5% subgroup and the overall population; the most common TEAEs were also similar between groups (**Table 1**)
- In a separate analysis by baseline IGA, HP/TAZ-treated participants with moderate psoriasis (IGA 3) experienced fewer irritation-related AEs than those with severe psoriasis (IGA 4; data not shown)

TABLE 1. **Treatment-Emergent Adverse Events**

	BSA 3–5% Subgroup		Overall Population	
	HP/TAZ Lotion (n=148)	Vehicle Lotion (n=82)	HP/TAZ Lotion (n=270)	Vehicle Lotion (n=140)
Any TEAE, n (%)	55 (37.2)	16 (19.5)	97 (35.9)	30 (21.4)
Most common TEAEs[a], n (%)				
Contact dermatitis	11 (7.4)	0	20 (7.4)	0
Pruritis	4 (2.7)	2 (2.4)	8 (3.0)	4 (2.9)
Folliculitis	4 (2.7)	0	5 (1.9)	0
Burning sensation[b]	4 (2.7)	1 (1.2)	4 (1.5)	3 (2.1)
Application site pain	3 (2.0)	0	7 (2.6)	1 (0.7)
Nasopharyngitis[c]	2 (1.4)	2 (2.4)	5 (1.9)	4 (2.9)

[a]At least 2.5% incidence in any treatment group.
[b]System Organ Class: nervous system disorder.
[c]No instances were considered by the investigator to be treatment related.
BSA, body surface area; HP/TAZ, halobetasol propionate 0.01% and tazarotene 0.045%; TEAE, treatment-emergent adverse event.

- Skin atrophy was reported as an AE in 5 (1.9%) participants who received HP/TAZ lotion; of those, 2 (1.4%) had baseline BSA 3–5%
  - No participants who received vehicle reported skin atrophy as an AE

Local Skin Reactions

- Itching, dryness, and burning/stinging showed improvements over 8 weeks of HP/TAZ treatment in the BSA 3–5% subgroup and the overall population (data not shown)
- In HP/TAZ-treated participants; the BSA 3–5% subgroup and overall population had low peak incidence of skin atrophy (4.4% and 2.9%, respectively), striae (0.7% and 1.3%), telangiectasias (0.7% and 0.8%), and folliculitis (2.2% and 2.9%)
  - Incidence peaked at week 8 for all assessments except telangiectasias, which peaked at week 6 in the overall population
  - Among participants treated with vehicle lotion, incidence of these local skin reactions was 0.5%-1.5% at all study visits

CONCLUSIONS

- In two pooled phase 3 studies, HP/TAZ lotion demonstrated rapid efficacy versus vehicle and clinically meaningful improvement in QoL among participants with lower (3–5%) affected BSA at baseline, with improvements maintained 4 weeks posttreatment
- HP/TAZ lotion was well tolerated, with low rates of skin atrophy and other local skin reactions
- HP/TAZ lotion may be an effective and well tolerated option for the treatment of "milder" psoriasis in patients with lower BSA involvement

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AUTHOR DISCLOSURES

CL is a consultant for AbbVie, Amgen, Boehringer Ingelheim, Dermira, Eli Lilly, Janssen, LEO Pharma, Pfizer, Sandoz, UCB, and Vitae; an investigator for Actavis, AbbVie, Allergan, Amgen, Boehringer Ingelheim, Celgene, Coherus, Cellceutix, Corrona, Dermira, Eli Lilly, Galderma, Glenmark, Janssen, LEO Pharma, Merck, Novartis, Novella, Pfizer, Sandoz, Sienna, Stiefel, UCB, and Wyeth; and a speaker for AbbVie, Celgene, Novartis, Sun Pharmaceutical, and Eli Lilly. LSG has served as investigator/consultant or speaker for Ortho Dermatologics, LEO, Dermavant, Incyte, Novartis, AbbVie, Pfizer, Sun, UCB, Arcutis and Lilly. EL has nothing to disclose. AN has received grants/research funding from Amgen, Celgene, Chugai Pharma, Janssen (Johnson & Johnson), Maruho, Novartis, Pfizer, Regeneron, and Xoma; fellowship funding from AbbVie and Janssen (Johnson & Johnson); and has served on advisory boards for Janssen (Johnson & Johnson), Abbvie, and Amgen. AJ is an employee of Ortho Dermatologics and may hold stock and/or stock options in its parent company.

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