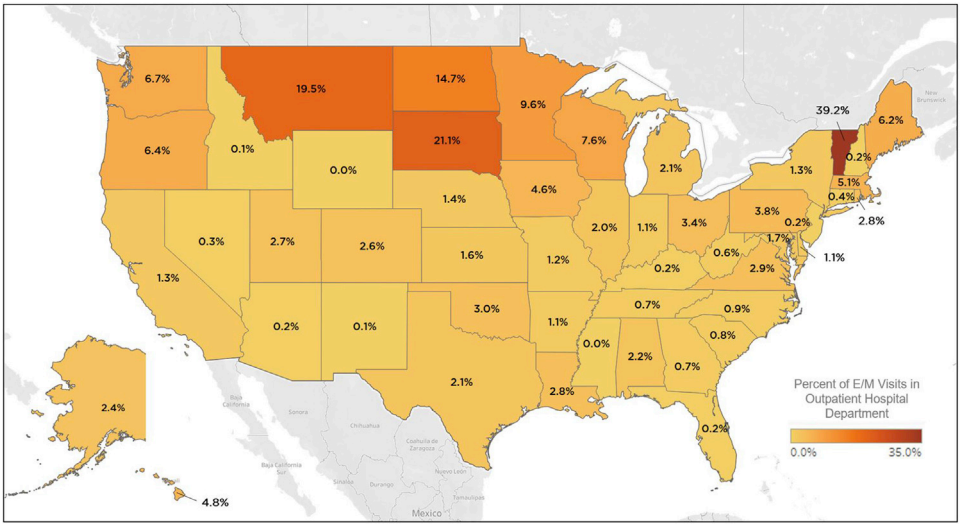

Fig 1. Geographic variation in Medicare evaluation and management visit occurrence at outpatient hospital department locations among dermatologists. Percentages indicate the frequency of E&M visits at the outpatient hospital department as a proportion of all E&M visits. Data were aggregated for each state by considering the billing address of each dermatologist. Limited granularity in the Physician and Other Supplier Public Use File precluded the discernment between off-campus and on-campus outpatient hospital visits visits. *E&M*, Evaluation and management.

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Funding sources: None.

Disclosure: Author H. Feng has served as a consultant for Cytrellis Biosystems, Inc. Authors Gronbeck and P.W. Feng have no conflicts of interest to declare.

IRB approval status: Reviewed and exempted by the University of Connecticut Health Center.

Reprints not available from the authors.

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REFERENCES

1. The Centers for Medicare and Medicaid Services. Medicare program: proposed changes to hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; requests for information on promoting interoperability and electronic health care information, price transparency, and leveraging authority for the competitive acquisition program for part B drugs and biologicals for a potential CMS innovation center model.. Available at: https://www.federalregister.gov/documents/2018/07/31/2018-15958/medicare-program-proposed-changes-to-hospital-outpatient-prospective-payment-and-ambulatory-surgical. Accessed December 23, 2019.
2. Kondamuri NS, Rathi VK, Naunheim MR, Varvares MA. Financial implications of site-neutral payments for clinic visits in otolaryngology. *JAMA Otolaryngol Head Neck Surg*. 2019.
3. Fleishon HB, Itri JN, Boland GW, Duszak R Jr. Academic medical centers and community hospitals integration: trends and strategies. *J Am Coll Radiol*. 2017;14(1):45-51.
4. Qureshi A, Friedman A. Comorbidities in dermatology: what's real and what's not. *Dermatol Clin*. 2019;37(1):65-71.
5. Green Mountain Care Board. Re: Payment Differential and Provider Reimbursement Report, Act 85 (2017) § E.345.1.. Available at: https://legislature.vermont.gov/assets/Legislative-Reports/GMCB-Fair-Reimbursement-Report-Oct-1-2017.pdf. Accessed October 1, 2019.

https://doi.org/10.1016/j.jaad.2020.02.035

Psoriasis improvement and satisfaction in patients using a clobetasol spray and oral apremilast combination regimen: A pilot study

To the Editor: Apremilast is an oral phosphodiesterase-4 inhibitor with a 33% efficacy of achieving Psoriasis Area and Severity Improvement (PASI) 75 at 16 weeks for patients with moderate to severe plaque psoriasis.[1] Common adverse effects include gastrointestinal symptoms, headache, and nasopharyngitis.[1] Clobetasol propionate spray 0.05%, a clobetasol formulation with similar efficacy

Table I. Demographics of patients who completed the study

Patient demographics	Patients (N = 19)
Sex, No. (%)	
Male	11 (57.9)
Female	8 (42.1)
Measurements, mean ± SD	
Height, in*	66.06 ± 3.33
Weight, lb	186.8 ± 34.52
History, No. (%)	
Smoking	1 (5.3)
Alcohol†	8 (42.1)
Relevant surgery‡	0 (0.0)
Contraception§	1 (12.5)

*1 patient did not report height.
†2 patients reported occasional alcohol use.
‡Only 6 patients responded.
§3 of 8 women responded.

and potency to other topical clobetasol preparations, is effective at achieving rapid PASI 75 reduction at 4 weeks but cannot be used long-term because of potential skin and adrenal adverse effects.[2,3] Studies have reported stinging/burning sensations (~25%), mild skin atrophy (≤3%), but no adrenal adverse effects within 4 weeks of using clobetasol spray.[2]

We conducted a single-site, prospective, single-arm trial to evaluate the efficacy of the combination of clobetasol spray and apremilast for patients with moderate to severe psoriasis. The spray formulation was preferred because of ease of use over ointments, especially in the scalp.[3] PASI 75 response rates at 16 weeks was our primary objective. The Western Institutional Review Board approved this trial (clinicaltrials.gov/NCT03453190).

Participants were titrated to apremilast 30 mg twice daily, following United States Food and Drug Administration prescribing instructions, and continued for 16 weeks. Concurrently, participants applied clobetasol propionate 0.05% spray for the initial 6 weeks following this tapering regimen: spray affected areas twice daily for 2 weeks, once daily for 2 weeks, and every other day for 2 weeks.

Demographics, treatment efficacy, and Treatment Satisfaction Questionnaire for Medication Version II satisfaction survey scores were assessed. Static Physician Global Assessment (PGA), body surface area × PGA, PASI 75, pruritus visual analog score, scalp PGA scores, and Treatment Satisfaction Questionnaire for Medication Version II scores were recorded at 2, 4, 6, 8, 12, and 16 weeks. Adverse events were recorded, and patients could withdraw from the study if indicated.

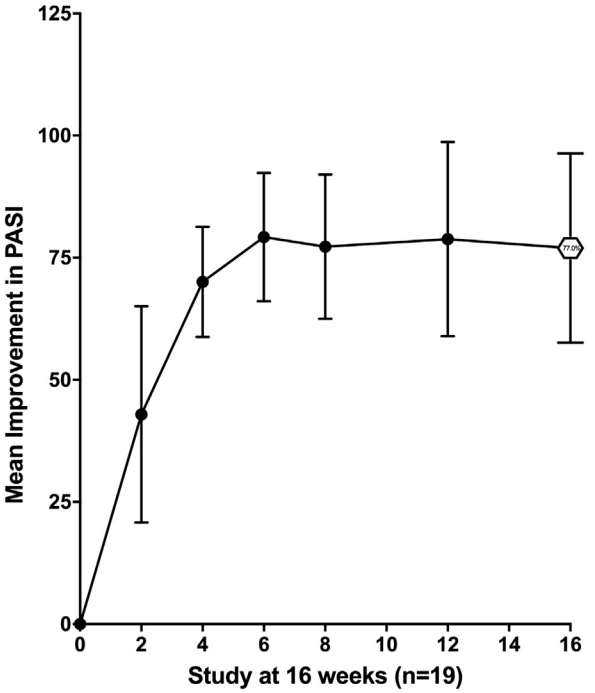

Fig 1. Mean Psoriasis Area and Severity Improvement (*PASI*) at 16 weeks. PASI scores were assessed at 2, 4, 6, 8, 12, and 16 weeks of the study. Data are shown as mean ± SD.

Overall, 19 patients (95%) completed the trial. Table I reports the demographic data. None had history of reflux or gastrointestinal disturbances. PASI 75 was achieved in 13 patients (68.4%) by 6 weeks, and this efficacy was maintained through 16 weeks. Mean PASI improvement at 16 weeks was 77.0% ± 19.4% (Fig 1). Similarly, mean body surface area × PGA improvement at 16 weeks was 83.6% ± 23.5%. Thirteen patients (68.4%) achieved static PGA scores of 0 to 1 at 16 weeks. Of 16 individuals with scalp psoriasis, 13 (81.3%) achieved scalp PGA scores of 0 to 1 at 16 weeks. Pruritus visual analog score scores decreased from 6.5 ± 2.93 to 2.9 ± 2.88 (0-16 weeks). As assessed by the Treatment Satisfaction Questionnaire for Medication Version II survey, 16 patients (84.2%) were satisfied with their treatment at 16 weeks overall. One patient subject reported gastrointestinal symptoms, but these did not lead to study discontinuation.

In conclusion, our study determined the efficacy of clobetasol spray and apremilast combinatorial therapy. Clobetasol spray and apremilast combinatorial therapy achieved higher PASI 75 response rates compared with apremilast monotherapy at 16 weeks.[1,4] This is likely because the initial use of clobetasol spray induced rapid psoriasis resolution to complement the long-term maintenance of

apremilast. Although our study is limited because we only compared with historical data, the addition of clobetasol spray and apremilast combinatorial therapy to psoriasis management is still acceptable because of its pragmatic approach and still allows patients to have efficacious treatments for those who are not candidates for biologic agents.[5] Larger clinical trials should be conducted to validate these findings.

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Funding sources: This study was funded by Celgene Corporation.

Conflicts of interest: Dr Prussick is a member of the National Psoriasis Foundation, serves as a speaker for Celgene Corporation, and received research grants from Celgene Corporation. Mr Wei and Dr Friedman have no conflicts of interest to declare.

IRB approval status: Reviewed and approved by Western Institutional Review Board (clinicaltrials.gov: NCT03453190).

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REFERENCES

1. Papp K, Reich K, Leonardi CL, et al. Apremilast, an oral phosphodiesterase 4 (PDE4) inhibitor, in patients with moderate to severe plaque psoriasis: results of a phase III, randomized, controlled trial (Efficacy and Safety Trial Evaluating the Effects of Apremilast in Psoriasis [ESTEEM] 1). *J Am Acad Dermatol*. 2015;73(1):37-49.
2. Menter A. Clobetasol propionate spray 0.05% for the treatment of moderate to severe plaque psoriasis. *Cutis*. 2012;89(2):89-94.
3. Feldman SR, Yentzer BA. Topical clobetasol propionate in the treatment of psoriasis. *Am J Clin Dermatol*. 2009;10(6):397-406.
4. Paul C, Cather J, Gooderham M, et al. Efficacy and safety of apremilast, an oral phosphodiesterase 4 inhibitor, in patients with moderate-to-severe plaque psoriasis over 52 weeks: a phase III, randomized controlled trial (ESTEEM 2). *Br J Dermatol*. 2015;173(6):1387-1399.
5. Mócsai A, Kovács L, Gergely P. What is the future of targeted therapy in rheumatology: biologics or small molecules? *BMC Med*. 2014;12:43.

https://doi.org/10.1016/j.jaad.2020.02.036

Tanning bed use and depression in a preventive medicine cohort: The Cooper Center Longitudinal Study

To the Editor: Tanning bed use continues despite evidence of increased skin cancer risk. In addition to dermatologic risk, tanning bed use is linked to affective and other psychiatric disorders.[1] Individuals with a greater concern for their appearance and more depressive symptoms are more likely to engage in indoor tanning and are at risk for addiction to this unhealthy behavior.[2] People with depressive symptoms may seek temporary relief of their symptoms through indoor tanning and its mood-altering properties.[3] The current study sought to evaluate whether depressive symptoms would be higher among tanning bed users and whether depressive symptoms were positively associated with lifetime frequency of tanning bed use.

We included 11,823 participants (32% women; mean age, 52 years) enrolled in the Cooper Center Longitudinal Study who underwent a preventive medicine examination (details described elsewhere[4]) from 2013 to 2019. Study participants were categorized into 2 groups: those who reported use of tanning beds and those who had not. Depressive symptoms were assessed by the 10-item Center for Epidemiologic Studies Depression Scale. A lifetime frequency of tanning bed use (per year) was calculated by dividing the number of times a tanning bed was used by the time between tanning onset and examination date. Logistic regression models of Center for Epidemiologic Studies Depression Scale score ≥10 were fitted to tanning bed use and adjusted for age, sex, race/ethnicity, body mass index, thyroid-stimulating hormone, serum vitamin D, education, smoking status, self-rating of health, alcohol intake, cardiorespiratory fitness, and cancer history.

Descriptive characteristics of study participants are presented in Table I. Of 11,823 participants, 1791 (15.1%) reported tanning bed use. Tanning bed users were younger ($P < .001$), more likely to smoke (women, $P = .009$; men, $P = .022$), and had higher fitness levels ($P < .001$) than nontanners. Female tanning bed users were more likely to be heavy drinkers ($P = .035$). Self-reported history of depression was higher among tanning bed users ($P < .001$). Tanning bed users reported tanning on average 4.2 (SD, 12.5) times per year with a wide range (1-200 times per year). Tanning bed use was associated with greater odds of depressive symptoms in men (odds ratio, 1.86; 95% confidence interval, 1.41-2.44; $P < .001$), and a similar pattern was seen in women