Table II. Multivariable logistic regression model for leaving against medical advice in patients hospitalized for dermatologic conditions

Patient demographics	Adjusted odds ratio (95% CI)	*P* value
Sex		
Male	1.56 (1.50-1.63)	<.001
Female	Reference	—
Age, y		
0-17	0.06 (0.04-0.07)	<.001
18-39	1.41 (1.33-1.50)	<.001
40-59	Reference	—
60-79	0.37 (0.34-0.39)	<.001
≥80	0.13 (0.11-0.15)	<.001
Race		
Non-Hispanic White	Reference	
Black	0.995 (0.918-1.079)	.910
Hispanic	0.91 (0.81-1.02)	.089
Asian/Pacific Islander	0.77 (0.60-0.97)	.029
Native American	1.03 (0.81-1.31)	.836
Other	1.16 (0.99-1.36)	.066
Quartile of income, percentile		
0-25th	1.28 (1.16-1.41)	<.001
26th-50th	1.15 (1.03-1.27)	.0102
51st-75th	1.05 (0.97-1.13)	.211
76th-100th	Reference	—
Primary payer		
Medicare	Reference	—
Medicaid	1.77 (1.66-1.90)	<.001
Private insurance	0.48 (0.44-0.52)	<.001
Self-pay	1.91 (1.74-2.09)	<.001
No charge	1.43 (1.20-1.71)	<.001
Other	0.97 (0.85-1.10)	.607
Admission type		
Emergent	1.79 (1.59-2.01)	<.001
Elective	Reference	—
Dermatologic condition		
Melanoma	0.73 (0.42-1.26)	.255
Other nonepithelial skin cancer	0.74 (0.52-1.04)	.078
Skin/subcutaneous infection	1.19 (1.12-1.27)	<.001
Inflammatory skin condition	0.81 (0.71-0.93)	.003
Chronic skin ulcer	Reference	—
Other skin disorder	0.89 (0.79-1.02)	.086
Hospitalization details		
Underwent major surgical procedure		
No	Reference	—
Yes	0.38 (0.35-0.40)	<.001
Number of chronic conditions		
0-1	Reference	—
2-4	1.33 (1.24-1.42)	<.001
5 or more	1.04 (0.96-1.13)	.336
Hospital type		
Rural	Reference	—
Urban nonteaching	1.70 (1.52-1.91)	<.001
Urban teaching	1.51 (1.34-1.70)	<.001

CI, Confidence interval.

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Characterization of real-world patients with psoriasis and without a history of depression: The Corrona Psoriasis Registry

To the Editor: Patients with psoriasis are 1.5-times more likely to have concomitant depression (odds ratio, 1.57; 95% confidence interval, 1.40-1.76)[1] than individuals without psoriasis. There are limited real-world data describing the characteristics of patients with psoriasis with depression vs those without depression, and no available data regarding antidepressant use in these cohorts. The main objective of this cross-sectional study was to explore these gaps.

Data were derived from the Corrona Psoriasis Registry—a prospective, multicenter, observational, disease-based registry.[2] Our analysis included enrollment data on 5835 patients starting from the launch of the registry in April 2015 through September 2018. Patients were stratified by the presence or absence of a self-reported history of depression (yes/no). Patients were also classified into 3 groups: (1) no history of depression, (2) history of depression and taking antidepressants,

Table I. Demographic characteristics by depression level

Variable	No history of depression (n = 4152)	History of depression: Not taking antidepressants (n = 849)	History of depression: Taking antidepressants (n = 807)	*P* value*
Age, mean (SD), y	49.9 (14.7)	47.4 (14.8)	51.9 (13.1)	<.001
Sex, No. (%)				
Male	2398 (57.8)	374 (44.1)	234 (29.0)	<.001
Female	1753 (42.2)	475 (55.9)	573 (71.0)	
Race, No. (%)				
White	3167 (76.3)	672 (79.2)	724 (89.7)	
Black	192 (4.6)	33 (3.9)	17 (2.1)	<.001
Asian	476 (11.5)	59 (6.9)	15 (1.9)	
Other	317 (7.6)	85 (10.0)	51 (6.3)	
BMI, mean (SD), kg/m^2	30.4 (6.9)	31.7 (8.3)	33.1 (8.4)	<.001
Insurance type, No. (%)				
Private	3264 (78.6)	578 (68.1)	544 (67.4)	<.001
Medicare	603 (14.5)	147 (17.3)	199 (24.7)	<.001
Medicaid	358 (8.6)	131 (15.4)	148 (18.3)	<.001
No insurance	137 (3.3)	46 (5.4)	16 (2.0)	<.001
Education, No. (%)				
12th grade or less	283 (6.8)	56 (6.6)	50 (6.2)	
High school graduate/GED	939 (22.6)	182 (21.4)	185 (22.9)	.042
Some college/associates degree	1223 (29.5)	295 (34.7)	268 (33.2)	
College graduate or higher	1702 (41.0)	316 (37.2)	303 (37.5)	
Marital status, No. (%)				
Single	1001 (24.1)	278 (32.7)	179 (22.2)	
Married	2577 (62.1)	382 (45.0)	436 (54.0)	<.001
Partnered	86 (2.1)	28 (3.3)	12 (1.5)	
Other	471 (11.3)	156 (18.4)	180 (22.3)	
Work status, No. (%)				
Full time	2650 (63.8)	457 (53.8)	335 (41.5)	
Part time	347 (8.4)	86 (10.1)	61 (7.6)	<.001
Work at home	214 (5.2)	71 (8.4)	78 (9.7)	
Student	119 (2.9)	27 (3.2)	17 (2.1)	
Disabled	166 (4.0)	89 (10.5)	165 (20.4)	
Retired	650 (15.7)	116 (13.7)	150 (18.6)	
Smoking, No. (%)				
Current smoker	632 (15.2)	187 (22.0)	160 (19.8)	
Past smoker	1264 (30.4)	295 (34.7)	293 (36.3)	<.001
Never smoked	2209 (53.2)	361 (42.5)	347 (43.0)	
History of comorbidities, No. (%)				
Cardiovascular disease	374 (9.0)	97 (11.4)	126 (15.6)	<.001
Hypertension	1469 (35.4)	294 (34.6)	396 (49.1)	<.001
Hyperlipidemia	1042 (25.1)	229 (27.0)	292 (36.2)	<.001
Diabetes mellitus	560 (13.5)	124 (14.6)	174 (21.6)	<.001
Lymphoma	6 (0.1)	0 (0.0)	0 (0.0)	.521
Metabolic syndrome	26 (0.6)	17 (2.0)	12 (1.5)	<.001
Crohn's disease	22 (0.5)	8 (0.9)	6 (0.7)	.336

BMI, Body mass index (calculated as weight [kg]/height [m^2]); *GED*, General Education Diploma; *No.*, number.
*One-way analysis of variance (assuming equal variance across groups) is used for continuous variables, the χ^2 independence test is used for categorical or dichotomous variables, and the Fisher exact test is used for categorical/dichotomous variables with category size smaller than 5.

and (3) history of depression and not taking antidepressants. We evaluated patient demographics, disease characteristics, and patient-reported outcome measures (PROMs). Further information on research methods is available in the Supplemental information (available via Mendeley at https://dx.doi.org/10.17632/8gzjyds5fx.2).

Among the 5835 patients included in this study, 1525 (26.1%) reported a history of depression. Demographic data are available in Supplementary

Table II. Disease characteristics and patient-reported outcomes by depression level

Variable	No history of depression (n = 4152)	History of depression: Not taking antidepressants (n = 849)	History of depression: Taking antidepressants (n = 807)	*P* value*†	*P* value‡§
Disease characteristics					
Body surface area, mean (SD), % involvement	10.0 (14.2)	11.7 (16.7)	9.7 (13.4)	.004	.007
PASI (score: 0-72), mean (SD)	5.9 (7.3)	6.5 (8.1)	5.5 (6.8)	.003	.006
IGA, mean (SD)	2.2 (1.2)	2.3 (1.2)	2.3 (1.2)	.5	.5
Psoriasis duration, mean (SD), y	14.9 (13.4)	4.7 (13.7)	15.2 (14.0)	<.001	.77
Psoriatic arthritis, No. (%)	1469 (35.4)	365 (43.0)	375 (46.5)	.16	<.001
Psoriatic arthritis duration,‖ mean (SD), y	7.5 (8.8)	7.3 (8.4)	6.4 (7.5)	.01	.02
Patient-reported outcomes					
Patient overall					
Fatigue (VAS 0-100), mean (SD)	26.9 (27.4)	40.8 (29.9)	43.2 (30.2)	.052	<.001
Itch (VAS 0-100), mean (SD)	36.3 (34.3)	43.9 (35.5)	43.2 (35.3)	.344	<.001
Pain (VAS 0-100), mean (SD)	21.7 (28.9)	31.0 (32.8)	28.9 (32.6)	.096	<.001
Currently employed, No. (%)	3006 (72.6)	544 (64.6)	406 (50.3)	<.001	<.001
WPAI: Percentage of work hours missed due to psoriasis,¶ mean (SD)	2.8 (11.7)	6.4 (18.3)	3.6 (13.9)	<.001	<.001
WPAI: Percentage of impairment while working due to psoriasis,¶ mean (SD)	11.5 (20.6)	16.2 (23.1)	14.4 (21.6)	.05	<.001
WPAI: Overall percentage of work hours affected by psoriasis,¶ mean (SD)	12.7 (21.9)	18.8 (25.2)	15.7 (22.9)	.004	<.001
WPAI: Percentage of daily activities impaired by psoriasis, mean (SD)	15.9 (24.3)	26.2 (29.7)	26.7 (30.2)	.37	<.001
DLQI (score: 0-30), mean (SD)	6.4 (6.0)	8.4 (6.7)	8.1 (6.3)	.17	<.001

DLQI, Dermatology Life Quality Index; *IGA*, Investigator's Global Assessment; *No.*, number; *PASI*, Psoriasis Area Severity Index; *VAS*, visual analog scale; *WPAI*, Work Productivity and Impairment.

*Patients with a history of depression not taking antidepressants compared with those with a history of depression taking antidepressants.

†One-sample *t* test is used for continuous variables, the χ^2 independence test is used for categorical or dichotomous variables, and the Fisher exact test is used for categorical/dichotomous variables with a category size smaller than 5.

‡Comparison of 3 groups.

§One-way analysis of variance (assuming equal variance across groups) is used for continuous variables, the χ^2 independence test is used for categorical or dichotomous variables, and the Fisher exact test is used for categorical/dichotomous variables with a category size smaller than 5.

‖Among those with psoriatic arthritis only.

¶Among those who were employed.

Tables I and II. Disease characteristics and PROMs are available in Supplementary Table III. Patient stratification by antidepressant use revealed that individuals with a history of depression and taking antidepressants were more likely to be older, female, and white, and to have federal insurance, a higher body mass index, and a history of comorbidities compared with those with depression not taking antidepressants and those without a history of depression (Table I).

In comparing patients with a history of depression taking antidepressants vs those not taking antidepressants, the no-antidepressant group had higher mean body surface area percentage involvement (11.7%, $P = .004$) and mean Psoriasis Area and Severity Index scores (6.5, $P = .003$), suggesting worse disease characteristics (Table II). Similarly, those with a history of depression not taking antidepressants had higher percentage of work hours missed due to psoriasis (6.4%, $P < .001$), percentage impairment while working (16.2%, $P = .05$), and overall work hours affected (18.8%, $P = .004$).

Although we cannot account for confounding factors, we should consider antidepressant impact on psoriasis outcomes. Accounting for the improved disease characteristics, a systematic review evaluating different antidepressants found marked improvement in pruritus.[3] The itch-scratch cycle is known to cause mechanical disruption of the skin, leading to further disease induction, including psoriasis.[4,5] Therefore, this theory may partially account for the improvement in disease characteristics observed in our cohort.

This is the first study, to our knowledge, to stratify patients with psoriasis according to antidepressant use. In our study, patients with psoriasis with a

history of depression taking antidepressants had lower cutaneous disease severity and better PROMs for certain indicators. This study suggests a critical role for antidepressants in the management of patients with psoriasis with depression—a possible cornerstone in treatment. As dermatologists, awareness of this association can promote more consistent and timely referrals to psychiatrists, allowing for personalized management to impact both skin disease and quality of life.

Limitations include the patient-reported nature of depression and selection bias (registry participation is voluntary). Further, those with depression not seeking treatment may not seek treatment for psoriasis either.

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Comparison of Medicare clinical activity among female and male dermatologists, 2012-2017

To the Editor: Clinical activity among physicians can be influenced by workplace opportunities, patient complexity, and physician preferences.[1,2] The relationship between sex and clinical activity among dermatologists remains uninvestigated and warrants assessment, given the increasing proportion of female dermatologists and the relationship between clinical activity and reimbursement.[3]

We performed a review of 2012-2017 Medicare Physician and Other Supplier Public Use Files to describe overall differences in volume of clinic visits, procedures, and unique beneficiaries among male and female dermatologists and subspecialists and to assess trends in these parameters. We also evaluated for sex differences in frequently billed services.

Among dermatologists who submitted Medicare claims from 2012 to 2017, male dermatologists demonstrated higher levels of activity parameters (all $P < .001$) (Table I). Male general dermatologists performed a greater number of destructions of actinic keratoses per beneficiary (1.96 vs 1.59; $P < .001$); however, female general dermatologists and Mohs surgeons more often engaged in 25-minute visits (0.44 vs 0.37; $P < .001$) (Table II).

Previous survey analyses have described fewer work hours among female dermatologists.[3] Although this study cannot correlate Medicare activity to work hours, 36% of female dermatologists report having their first child as an attending physician,[4] which may present competing time demands and inform clinical patterns. Alternatively, survey data suggest that female dermatologists are motivated by patient relationships (37%) as opposed