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Specialty Utilization Disparities Among Hidradenitis Suppurativa Patients in a Retrospective Analysis of the National Ambulatory Medical Care Survey 2006-2016

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Hidradenitis suppurativa (HS) is a chronic inflammatory disease, with patients often having delayed diagnosis and significant impact on quality of life [1]. Compared to other inflammatory diseases, HS required more emergency department visits (7.4% versus 4.2%, P < 0.0001) and admissions (5.1% versus 2.5%, P < 0.0001), according to a medical claims database study 2008-2012. In a United States (US) retrospective analysis of 47,690 HS patients, Blacks were three times more likely to be diagnosed with HS compared to Whites [3]. Therefore, we aimed to investigate healthcare utilization among US Non-Hispanic Whites (NHW) and skin of color (SoC) HS patients.

The National Ambulatory Medical Care Survey (NAMCS) 2006-2016 was queried for HS visits. Non-Hispanic Black, Hispanic, Asian, and Pacific Islander patients were grouped as SoC. Specialty utilization, insurance status, appointment wait time, number of previous visits, visit time, and appointment location were analyzed. Analysis of variance and chi-squared test were conducted using SPSS. Multinomial logistic regression analysis examined specialty utilization differences between groups.

There were an estimated 2,551,126 outpatient HS visits during the study period (1,777,020 NHW, 774,106 SoC). On average, SoC versus NHW patients were younger (33.6 years versus 37.9, P = 0.015) and had more previous visits (5.25 versus 3.99, P = 0.020). On chi-squared analysis, NHW patients were more often seen by dermatology (33.6%) versus family medicine (27.0%) or general surgery (18.7%), while SoC HS patients were more frequently seen by general surgery (35.9%) or family medicine (34.2%) versus dermatology (10.7%) (P = 0.006, all) (Table 1). Using multinomial logistic regression, NHW versus SoC patients were more often seen by dermatology, after adjusting for insurance type (OR: 3.288, 95% CI:1.324-8.167, P = 0.010). There were no statistically significant differences for sex, insurance type, appointment wait time, visit time, or location.

Table 1. Differences in Non-Hispanic Whites NHW skin of color and SoC hidradenitis suppurativa patients.

	NHW N = 1,777,020	SoCN = 774,106	P-value
Age (SE)	37.91 (0.94)	33.59 (1.48)	0.015
Sex, N (%)			0.065
Male	563,880 (31.7)	121,455 (15.7)	
Female	1,213,140 (68.3)	652,651 (84.3)	
Specialty, N (%)			0.006
Dermatology	596,488 (33.6)	82,797 (10.7)	
General Surgery	332,290 (18.7)	277,788 (35.9)	
Family Medicine	478,955 (27.0)	264,447 (34.2)	
Other	369,288 (20.9)	149,074 (19.2)	
Time until appointment, N (%)			0.056
<1 week	394,819 (22.2)	173,700 (22.4)	
1-2 weeks	288,242 (16.2)	243,986 (31.5)	
>2 weeks	62,4911 (35.2)	138,229 (17.9)	
Unknown	469,049 (26.4)	218,192 (28.1)	
Insurance status, N (%)			0.477
Private	1,024,173 (57.6)	470,576 (60.7)	
Medicaid or Medicare	653,592 (36.8)	249,401 (32.2)	
Self-pay	54,915 (3.1)	50,012 (6.5)	
Unknown	44,340 (2.5)	4,118 (0.5)	
Number of previous visits, mean (SE)	3.99 (0.35)	5.25 (0.34)	0.020
Appointment time, mean (SE)	19.19 (0.92)	20.91 (1.2)	0.239
Location, N (%)			0.987
Metropolitan	1,652,282 (93.0)	720,540 (93.1)	
Non-metropolitan	124,739 (7.0)	53,567 (6.9)	

NHW = Non-Hispanic White; SoC = skin of color (Asian or Pacific Islander, non-Hispanic Black, and Hispanic); SE = standard error. Tables (NHW) and (SoC) HS patients.

We identified significant healthcare specialty utilization disparities between NHW and SoC HS patients, validating a single institution retrospective analysis of 2,213 HS patients 2017-2020, reporting that Blacks versus Whites were treated less often by dermatology or primary care, and more often by surgery for HS-related visits.

A cross-sectional commercial database study 2007-2017 reported that dermatologists versus non-dermatologists prescribed opiates less often (OR: 0.23, 95% CI: 0.17-0.31) and prescribed nonantibiotic systemic medications more frequently (OR: 6.44, 95% CI: 4.87-8.52) to HS patients [4]. In a retrospective NAMCS analysis 1990-2009, dermatologists managed HS patients with a combination of procedure and medications more often than versus non-dermatologists (15% versus 6%), while non-dermatologists were more likely to provide neither medication nor procedural treatments (28% versus 2%) [5]. Therefore, limited dermatologist access might contribute to non-evidenced based HS management, particularly among SoC patients, which could explain their having more frequent appointments and being treated surgically rather than medically.

Non-NHW patients were designated as SoC, limiting differentiation among racial/ethnic groups. Socioeconomic status and education level, which influence healthcare utilization, were not studied.

In sum, we identified significant healthcare specialty utilization disparities between NHW and SoC HS patients, with NHW patients more likely to be seen by dermatologists and requiring fewer visits. These findings underscore the importance of addressing dermatologic care barriers, particularly for SoC HS patients, to optimize disease management and reduce the need for surgical intervention.

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