

# Assessing Treatment Delays for Vitiligo Patients: A Retrospective Chart Review

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## PRACTICE POINTS

- The medical community should be aware of factors associated with delay to treatment in patients with vitiligo, such as the diagnosing physician's specialty and patient age at disease onset.
- Race and percentage of body surface area affected at time of presentation also demonstrate trends regarding treatment delays in patients with vitiligo.

Many barriers to care exist for vitiligo patients that can impact patients' quality of life. Because early treatment of vitiligo is more efficacious, we investigated the factors associated with delay to treatment via a retrospective chart review of 102 consecutive patients attending an academic outpatient clinic over a 36-month time frame. Demographic information, clinical characteristics of vitiligo, and treatment details were obtained via a standardized questionnaire given to all patients with vitiligo. Our findings emphasize the need to investigate barriers to care to reduce health disparities among individuals with vitiligo.

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Similar to other dermatologic conditions, barriers to early care in patients with vitiligo can exacerbate health disparities.<sup>1</sup> Delayed treatment of vitiligo is known to hamper successful disease stabilization and repigmentation, as therapies tend to work more effectively in early stages of the disease.<sup>2</sup>

To investigate the factors associated with treatment delays for patients with vitiligo, we conducted a retrospective chart review of 102 consecutive patients with vitiligo attending an academic outpatient clinic in Austin, Texas, over 36 months.

## Methods

Our sample included 102 consecutive patients with vitiligo who attended an academic outpatient clinic in Austin, Texas, from January 2017 to January 2020. Demographic information, clinical characteristics of vitiligo, and treatment data were self-reported via a standardized questionnaire given to all patients with vitiligo and gathered from medical chart review. Patient characteristics are outlined in the Table. The delay to treatment was the time (in months) from the date the patient first noticed the lesion to the start date of first treatment. This retrospective chart review was reviewed by the University of Texas at Austin institutional review board and was determined to be exempt.

*Statistical Analysis*—The data were analyzed descriptively with a Wilcoxon rank sum test (type I error rate of .05).

## Results

Of the 102 charts that were analyzed, 45 were females and 57 were males. More than half of the patients (54.9% [56/102]) were White. Sixteen were Asian, 13 were Hispanic non-White, 11 were Black/African American, and 4 were American Indian/Alaska Native. The median age of disease onset was 21 years, minimum age was

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### Characteristics of Vitiligo Patients (N=102)

Characteristic	Patients with vitiligo	Characteristic	Patients with vitiligo
Gender, n		BSA affected at time of presentation to clinic, n	
Female	45	1%–25%	77
Male	57	26%–50%	16
Race/ethnicity, <sup>a</sup> n		51%–75%	1
Hispanic White	31	76%–100%	2
Non-Hispanic White	25	Not declared	6
Asian	16	Type of vitiligo, n	
Hispanic non-White	13	Segmental	11
Black/African American	11	Nonsegmental	91
American Indian or Alaska Native	4	Fitzpatrick skin type, n	
Not declared	4	I	2
Age when first lesion appeared, y		II	23
Minimum	1	III	37
Maximum	83	IV	22
Median	21	V	11
Physician who made the diagnosis, n		VI	6
Dermatologist	72	Unknown	1
Other type of physician	20	Smoking status, n	
Not declared	10	Current or former smoker	20
Insurance, n		Never smoked	79
Private	87	Unknown	3
Public	8		
Self-pay	4		
Not declared	3		

Abbreviation: BSA, body surface area.

<sup>a</sup>Some patients selected more than 1 race/ethnicity.

1 year, and maximum age was 83 years. The diagnosis of vitiligo was made by a dermatologist for 72 patients and by a physician of another specialty for 20 patients. Ten patients did not declare the specialty of the diagnosing physician.

Individuals older than 21 years when their disease started had a shorter delay to treatment than individuals who noticed their first lesion at an age younger than 21 years (median, 75 months vs 13 months;  $P < .01$ ). Individuals diagnosed by a dermatologist had a shorter delay to treatment than individuals diagnosed by a physician of another specialty (median, 13 months vs 58 months;  $P < .05$ ). White individuals had a shorter delay to treatment than individuals with skin of color (median, 13 months vs 31 months;  $P = .08$ ), though this trend did not reach statistical significance. Individuals with 1% to 25% of body surface area (BSA) affected at time of presentation to clinic also had a shorter delay to treatment than those with a greater BSA affected (median, 13 months vs 74 months;  $P < .06$ ), though this trend did not reach statistical significance. Type of vitiligo ( $P < .8$ ), Fitzpatrick skin type ( $P < .6$ ), and smoking status ( $P < .7$ ) were not associated with differential delays.

### Comment

*Impact of Age on Vitiligo Treatment*—Our data suggest that individuals who develop vitiligo at a younger age experience longer treatment delays compared to older individuals. Reasons for this are uncertain but could include access issues, medical decision-making agency, and younger patients not remembering being treated during their youth. Our data also could be influenced by some of the adult patients in our study first noticing their lesions many years ago when treatments for vitiligo were more limited. Nevertheless, detrimental effects on quality of life in children and adolescents with vitiligo suggest that motivating younger individuals with vitiligo to seek treatment or proactively making them aware of treatment opportunities may be beneficial.<sup>3</sup>

*Diagnosis of Vitiligo by Nondermatologists*—The increase in delay to treatment when a nondermatologist diagnoses vitiligo suggests that prompt initiation of treatment or referrals to dermatology by primary care providers may

not routinely be occurring.<sup>4</sup> Our data indicate the need to educate primary care providers on treatment opportunities for individuals with vitiligo and that early treatment generally is more effective.<sup>5</sup>

*Impact of Race/Ethnicity on Vitiligo Treatment*—Our data also show trends for longer treatment delays for individuals with skin of color. Although this did not reach statistical significance, we hope future studies will investigate this issue, especially because patients with skin of color experience more stigmatization and quality-of-life impacts by vitiligo than White patients.<sup>5</sup>

*Impact of BSA on Vitiligo Treatment*—Our data show that patients with a smaller BSA had a shorter delay to treatment than those with a greater BSA affected. This was a unique finding given it initially was hypothesized that patients with greater BSA would seek treatment earlier because of the associated increase in quality of life impact. This trend was not statistically significant, but further investigation would be helpful to analyze the reason behind treatment delays in patients with greater BSA affected.

### Conclusion

The delay to treatment in our study population was correlated with the diagnosing physician's specialty and patient age at disease onset, with trends also observed for race and BSA affected. These findings emphasize the need to investigate specific causes of barriers to early care to promote health equity among individuals with vitiligo.

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