

Willingness to Pay and QOL in Alopecia Areata



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TO THE EDITOR

Alopecia areata (AA) is an autoimmune disease that presents as nonscarring hair loss. In the United States, it is estimated that AA affects 0.1–0.2% of the population, with a lifetime risk of 2.1% (Alkhalifah et al., 2010). Willingness to pay (WTP) is a monetary, preference-based measure designed to gauge patients' WTP out of pocket (in US\$) for a cure or control of their condition. To our knowledge, this is the first study measuring WTP in patients with AA.

Patients indicated they were willing to pay a median of \$500–1,000 or approximately 13–22% of their monthly income for a permanent cure for AA; 33% of patients ($n = 13$) were willing to pay \$5,000 for a permanent cure and 15% ($n = 6$) were willing to pay \$5,000 to control the disease.

Patients with higher AA Symptom Impact Scale (AASIS) scores were more willing to pay $> \$1,000$ (mean AASIS score 47.8 vs. 26.0, $P = 0.012$) and $> \$5,000$ (mean AASIS score 53.2 vs. 25.8, $P = 0.003$) for a cure. Similarly, patients with higher AASIS scores were more willing to pay $> \$1,000$ (mean AASIS score 53.7 vs. 30.4, $P = 0.012$) and $> \$5,000$ (mean AASIS score 66.3 vs. 30.9, $P = 0.003$) to control disease (Table 2). Furthermore, patients with higher Severity of Alopecia Tool scores ($\geq 25\%$) had significantly higher AASIS scores than those with lower Severity of Alopecia Tool scores ($<25\%$) (mean AASIS 59.1 vs. 20.1, $P < 0.0001$). The average Severity of Alopecia Tool score for all 40 patients was 28.3%.

Our results indicate that 33% of patients with AA were willing to pay $\geq \$5,000$ for a permanent cure, comparable with the WTP of patients with

vitiligo (32.9%) (Radtke et al., 2009). For a permanent cure, our patients were willing to pay a median of \$500–1,000, compared with patients with atopic dermatitis who were willing to pay a median of €1,000 (~ US \$1,132) and patients with rosacea who were willing to pay €500 (~ US \$566) (Beikert et al., 2014). The median WTP as a percentage of monthly income was 10–20%, which is comparable with the percentage found with patients with atopic dermatitis and psoriasis and slightly more than that found with patients with rosacea (Beikert et al., 2014).

Severity of the disease was associated with QOL, a finding also noted in psoriasis. QOL was associated with WTP for both control and cure of the disease. Our patients reported a WTP at levels similar to patients with vitiligo, atopic dermatitis, and psoriasis, demonstrating the need for ongoing research toward a potential cure for AA. One limitation of our study was the small sample size; thus, further large-scale studies are warranted to validate our findings.

A total of 40 patients with AA were recruited from the dermatology clinic at the University of California, Los Angeles (Table 1). Patients completed the AASIS and a WTP questionnaire and were assessed by a dermatologist to calculate the Severity of Alopecia Tool score (Mendoza et al., 2013; Olsen et al., 2004). Our WTP questionnaire was a nonvalidated questionnaire that was based on those developed from previous WTP studies (Beikert et al., 2014; Radtke et al., 2009). All patients provided written consent to participate, and study materials were approved by the University of California, Los Angeles Institutional Review Board.

Table 1. Demographics of Patients with AA

Patient Characteristics	Value ¹
Age, y (range)	40.5 (18–68)
Disease duration, y	
<1	8 (20)
1–5	12 (30)
>5	19 (48)
Male	12 (30)
Hispanic	7 (18)
Race	
Black	3 (8)
Asian	14 (35)
White	15 (38)
Multiple and/or other	8 (20)
Education completed	
High school	4 (10)
2-year college	8 (20)
4-year college	15 (38)
Graduate school	8 (20)
Professional school	5 (13)
Annual income, \$	
<10,000	9 (23)
10,000–49,999	4 (10)
50,000–100,000	14 (35)
>100,000	13 (33)

Abbreviation: AA, alopecia areata.

¹Values are n (%) except where indicated. Not all categories round to 100%.

Statistical analyses were performed using the Fisher's exact test (for categorical data) or Wilcoxon test (for continuous data) as appropriate using Statistical Package for the Social Sciences V23 (IBM, Armonk, NY).

ORCIDiS

Jean-Phillip Okhovat: <http://orcid.org/0000-0002-4371-587X>

Tristan Grogan: <http://orcid.org/0000-0001-9471-2938>

Lewei Duan: <http://orcid.org/0000-0003-0324-5655>

Carolyn Goh: <http://orcid.org/0000-0003-3923-5125>

CONFLICT OF INTEREST

The authors state no conflict of interest.

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Abbreviations: AA, alopecia areata; AASIS, Alopecia Areata Symptom Impact Scale; WTP, willingness to pay

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Table 2. WTP for Cure or Treatment of AA

Questionnaire Item	AASIS Score		
	n	Values, Mean (SD)	P-Value ¹
WTP for cure <\$1,000	23	26.0 (21.5)	0.012
WTP for cure >\$1,000	16	47.8 (30.0)	
WTP for cure <\$5,000	26	25.8 (20.8)	0.003
WTP for cure >\$5,000	13	53.2 (30.0)	
WTP for control <\$1,000	30	30.4 (26.6)	0.012
WTP for control >\$1,000	10	53.7 (25.8)	
WTP for control <\$5,000	34	30.9 (25.6)	0.003
WTP for control >\$5,000	6	66.3 (22.4)	

Abbreviations: AA, alopecia areata; AASIS, Alopecia Areata Symptom Impact Scale; WTP, willingness to pay.

¹Statistical test used is the Wilcoxon test.

Boston, Massachusetts, USA; ³Department of Biostatistics and Epidemiology, Harvard TH Chan School of Public Health, Boston, Massachusetts, USA; ⁴Department of Medicine Statistics Core, University of California, Los Angeles, Los Angeles, California, USA; and ⁵Division of Dermatology, University of California, Los Angeles, Los Angeles, California, USA

*Corresponding author e-mail: jokhovat@mgh.harvard.edu

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**Jean-Phillip Okhovat^{1,2,3,*},
Tristan Grogan⁴, Lewei Duan⁴ and
Carolyn Goh⁵**

¹Department of Dermatology, Stanford University Medical Center, Palo Alto, California, USA; ²Beth Israel Deaconess Medical Center, Harvard Medical School,