

# Oral Minoxidil Media Coverage: The Impact on Patient Perceptions and Practitioner Approaches to Androgenetic Alopecia

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## INTRODUCTION

**A**ndrogenetic alopecia (AGA) has an estimated global prevalence of up to 80% in men and 42% in women that results from the effect of dihydrotestosterone miniaturizing scalp follicles.<sup>1,2</sup> The diagnosis often provokes significant emotional distress and psychological burden to patients, leading to increased demand for effective treatments.

Mainstream news outlets in recent years have attracted heightened participation among healthcare professionals to use such mediums to disseminate medical information for disease awareness and prevention, as it represents an unprecedented opportunity to improve health literacy, self-efficacy, and treatment adherence among populations.<sup>1</sup> While proving useful, these channels have also opened the door for spread of misinformation with potential implications including encouragement of unproven treatments without adequate disclosures or discussion of risks.<sup>1,3</sup> With the release of and attention to the *New York Times* (NYT) article 'An Old Medicine Remedies Hair Loss for Pennies a Day' in August 2022, low dose oral minoxidil (LDOM) gained a surge in popularity with rising public curiosity toward AGA management. Although recognized as an off-label approach when compared to its

topical analogue, we sought to elucidate the influence of this publication on consumer interest by surveying dermatologists on their perceived change in patient interest and resulting volumes as well as assessing communal interest trends on AGA and LDOM using Google Analytics.

## MATERIALS

An IRB approved (#NCR224464) thirty-question survey was sent using the ODAC conference email listserv. Respondents were predominantly dermatologists, a minority (estimated ~14%) were other dermatology providers including physician assistants and nurse practitioners. A total of 201 surveys were completed and anonymously compiled for further analysis. Concurrently, public interest trends on AGA were examined using Google Analytics and correlated with health-related news over matching time intervals. Weekly relative search volumes (RSV) over a one-year period from February 2022 to February 2023 pertaining to AGA-associated internet search terms, 'low-dose oral minoxidil' (LDOM), 'pattern hair loss' (PHL), and 'androgenetic alopecia' (AGA), were identified and scaled from 0 to 100- in proportion to the time at which a given term's popularity is maximal, represented by an RSV of 100.

**FIGURE 1.** Relative search volumes [RSV] for the terms 'low dose oral minoxidil', 'pattern hair loss', and 'androgenetic alopecia' on Google from February 2022 to February 2023 with climax peaks observed during the week of August 14<sup>th</sup>- 20<sup>th</sup>, 2022 corresponding to popular culture news and the release of the NYT article.

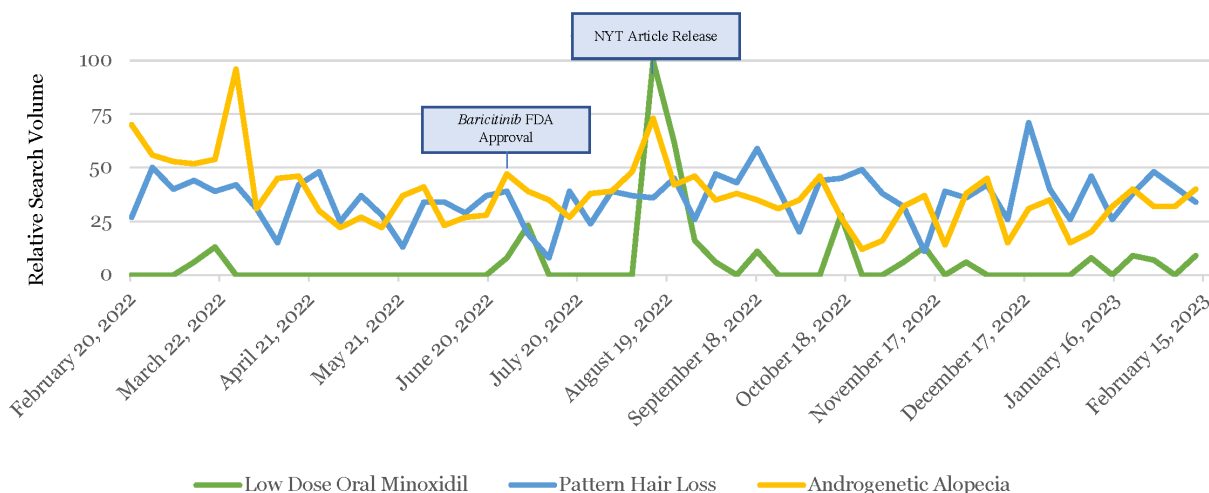


TABLE 1.

Oral Minoxidil Media Coverage: The Impact on Patient Perceptions and Practitioner Approaches to Androgenetic Alopecia		
Have you appreciated an increase in patient visits, NEW or RETURN, specifically to discuss/prescribe OM?	Total Responders = 142	
	Yes	101/142: 71.1%
	No	41/142: 28.9%
Approximately how many NEW patients per week are you seeing coming in with this specific request?	Total Responders = 97	
	0 -to- 5	81/97: 83.5%
	5 -to- 10	13/97: 13.4%
	10 -to- 15	3/97: 3.1%
Approximately how many RETURN patients per week are re-visiting specifically inquiring about OM?	Total Responders = 97	
	0 -to- 5	73/97: 75.3%
	5 -to- 10	22/97: 22.7%
	10 -to- 15	2/97: 2.1%
Of the patients for whom you've prescribed OM, have any encountered any of the below issues related to access?	Total Responders = 96	
	Failure of insurance coverage	6/96: 6.25%
	Increased out-of-pocket expense	6/96: 6.25%
	Low stock/inventory at local retail Rx	5/96: 5.21%
	Having to resort to special compounding Rx	9/96: 9.38%
	None of the above and/or OTHER	79/96: 82.3%
Have these patients raised any of the following claims?	Total Responders = 95	
	It is helpful for ALL forms of hair loss	15/95: 15.8%
	OM is more effective than 5-a-reductase inhibitors for AGA	15/95: 15.8%
	OM will promote thicker hair regrowth w/i 10M	12/95: 12.6%
	OM will prompt unwanted bodily hair growth	36/95: 37.9%
	OM is linked with sexual dysfunction	2/95: 2.1%
	Off-label use of OM is not safe	3/95: 3.2%
	Hair will begin to thin and fall-out after stopping OM	50/95: 52.6%
	None of the above and/or OTHER	33/95: 34.7%
Do you find yourself prescribing more OM since the release of the NYT article?	Total Responders = 97	
	Yes	83/97: 85.6%
	No	7/97: 7.2%
	Uncertain	7/97: 7.2%

## RESULTS

Respondents, stratified by professional healthcare titles, number of years in practice, care center type, and U.S. regions, were asked how the release of the *NYT* article influenced their dermatology practice. A specific focus was placed on whether they had appreciated an increase in patient visits to discuss and/or prescribe LDOM, and if they ultimately found themselves prescribing it at a greater frequency than prior to the *NYT* article (Table 1). 71% of surveyed respondents reported a surge in LDOM inquiry, with Board Certified Dermatologists (68.4%) and Dermatology Residents (62.5%) seeing the greatest spikes, irrespective of their number of years in practice. 76.9% of the

13 respondents working in Community Hospitals/ Multispecialty Clinics reported increases in LDOM interest, followed by Private Practices (48, n= 71) and Academic Institutions/VA (20, n= 31) closely tying the list at 67.6% and 64.5%, respectively. 83.5% reported seeing 0-to-5 and 13.4% 5-to-10 new patients per week, combined with 75.3% seeing 0-to-5 and 22.7% 5-to-10 returning patients per week with the above medication request. Most notably, a total of 85.6% respondents accounting for all U.S. demographic regions reported significant increases in LDOM prescriptions.

Furthermore, weekly RSV values for selected health-related terms LDOM and PHL exhibited trivial fluctuations six-months prior to August 2022, averaging at RSV < 25 and RSV < 50, accordingly. AGA RSV values demonstrated greater variability; web searches peaked at 97 during the week of March 27<sup>th</sup>-April 2<sup>nd</sup>, 2022, plummeted to 23 during the first week of May 2022, and again ascended to 47 during the week of June 26<sup>th</sup>-July 2<sup>nd</sup>, 2022-coinciding with the same dates *baricitinib* received FDA approval for alopecia areata. Google Analytics following the release of the *NYT* article on August 18<sup>th</sup>, 2022, showed notable peaks in LDOM, PHL, and AGA RSV values at 100, 37, and 73, respectively, during the week of August 14<sup>th</sup>-20<sup>th</sup>, 2022 corresponding to popular culture news. Nonetheless, those numbers returned to their baseline RSV values within four weeks and have continued to demonstrate minimal oscillations as of September 18<sup>th</sup>, 2022.

## DISCUSSION

We demonstrated that patient interest in LDOM has increased substantially, with 71% of nationwide Dermatologist respondents claiming upsurges in medication inquiry and prescription numbers surpassing 85% total increases since August 18<sup>th</sup>, 2022.

While authors of the *NYT* publication were strong proponents of LDOM attesting that it restored hair growth amidst several patients, no information was offered about its ideal dosing, treatment duration, adverse effects, and if efficacy was achieved with monotherapy or in combination with other medications. In reviewing recent literature, studies suggest that optimal safe doses of LDOM range between 0.625 mg and 5 mg daily, with the expectation to be used lifelong. 1.25 mg and 2.5 mg tablets are the most commonly prescribed dosages though are often adjusted in congruence with patient AGA severity.<sup>1,4</sup> Furthermore, six meta-regression analyses from other studies assessing LDOM efficacy demonstrated there exists a positive dose-dependent relationship that contributes significantly and results are best observed at 24 weeks following treatment initiation. For example, increasing an LDOM dose by 1mg/day was associated with sex-adjusted increases in total hair density (mean difference = 47.1 hairs/cm<sup>2</sup>, *P*=0.007), terminal hair density (mean difference = 9.1 hairs/cm<sup>2</sup>, *P*=0.001), and hair diameter (mean difference = 1.4 μm, *P*= 0.01).<sup>4</sup> However, investigators also witnessed dose-dependent risks of hypertrichosis, pedal edema, and cardiovascular events.<sup>4</sup> Fortunately, Dermatologists are comfortable using LDOM as an adjunctive treatment with other 5-α reductase inhibitors-including finasteride and dutasteride, to elicit maximal effects and improve long-term patient adherence.<sup>2,5</sup>

Together, these data highlight the impact media can have on patient education and care seeking behaviors and resulting practice trends. It is of the utmost importance that a collaborative and evidence-based approach be taken between journalists and health care practitioners to ensure that the widely disseminated information is realistic and evidence based.

## DISCLOSURES

The authors have no conflicts of interest to declare.

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