

## RESEARCH LETTER

**Influence of Direct-to-Consumer Drug Advertising on Dermatology Residents' Prescribing Patterns: A Cross-Sectional Poll-Based Study**

Lauren DeBusk, MD<sup>1</sup>, Brooke Bartley, MD<sup>1</sup>, Angela Rosenberg, DO<sup>1</sup>, Darrell Rigel, MD, MS<sup>1,2</sup>

<sup>1</sup> Department of Dermatology, UT Southwestern Medical Center, Dallas, Texas, USA

<sup>2</sup> Department of Dermatology, NYU Grossman School of Medicine, New York, New York, USA

**ABSTRACT**

Direct-to-consumer (DTC) pharmaceutical advertising is a prominent feature of U.S. healthcare, yet its influence on dermatologists' prescribing behavior is not well defined. We conducted a rapid-response, cross-sectional poll of 91 dermatology residents during a clinical education session in May 2025. Participants reported the proportion of patients with inflammatory skin disease who mention a DTC-advertised drug and how often such mentions influence their prescribing. Most respondents indicated that 1–25% of patients reference DTC-advertised drugs, while influence on prescribing was most often reported as 0% or 1–25%. Among 72 respondents who answered both questions, there was a weak, non-significant correlation between patient mentions and prescribing influence (Spearman  $\rho = 0.17$ ;  $p = 0.1566$ ). Over one-third reported no influence on prescribing, suggesting patient inquiry did not affect clinical decision-making. A small subset (8.3%) reported DTC influence more than 50% of the time, potentially reflecting alignment with guideline-supported options. Findings indicate that while DTC advertising generates patient awareness, its impact on dermatology residents' prescribing is modest, raising questions about the return on investment for such marketing strategies.

**INTRODUCTION**

Direct-to-consumer (DTC) advertising of pharmaceuticals remains a prominent feature of healthcare in the United States, particularly in specialties like dermatology where patient-facing media often feature novel therapies.<sup>1,2</sup> Although DTC campaigns are known to impact patient awareness, the extent to which they influence dermatologists' prescribing decisions is not well characterized.<sup>3,4</sup> To address this, we conducted a rapid-response, cross-sectional poll among dermatology residents attending

a clinical dermatology education session in May 2025.

**RESULTS**

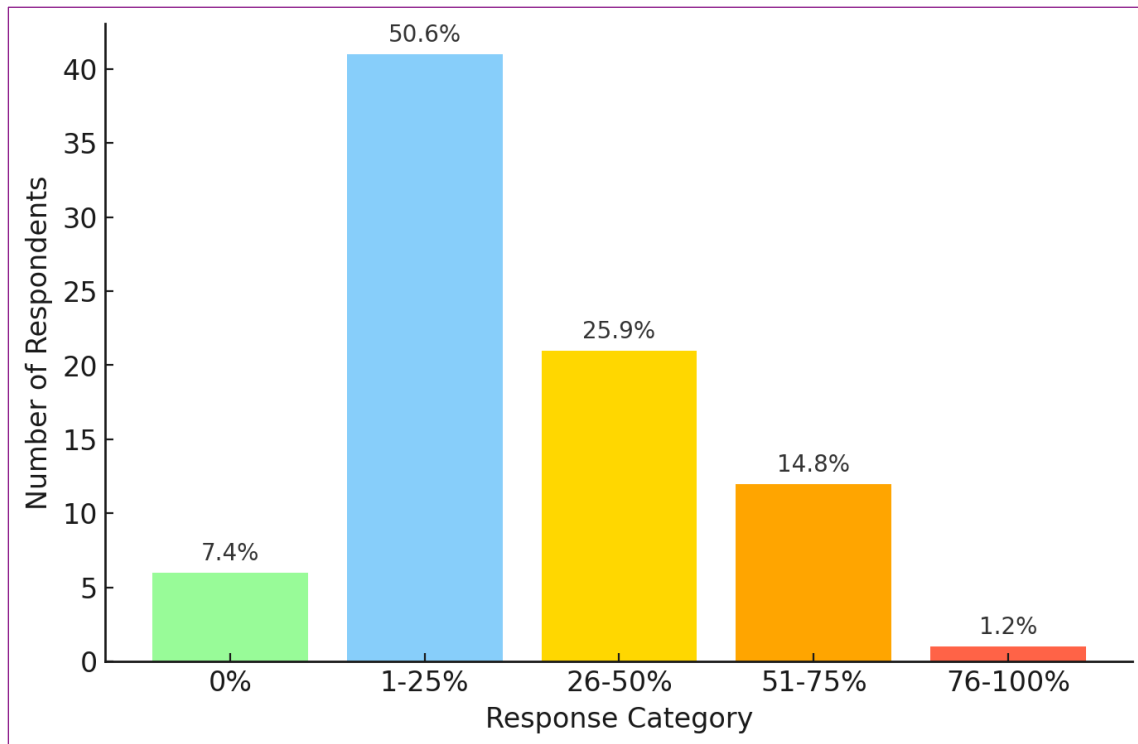
Participants were asked two sequential multiple-choice questions: (1) "What percentage of your patients with inflammatory skin disease mention a drug with DTC advertising?" and (2) "What percent of the time does this directly influence your prescribing?" Responses were given on a 5-point ordinal scale (0%, 1–25%, 26–50%, 51–75%, 76–100%). A total of 91 unique

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respondents participated. Of these, 72 answered both questions, 9 answered only the first, and 10 answered only the second.

Most respondents indicated that 1–25% of their patients reference DTC-advertised drugs (**Figure 1**). For prescribing influence, the most common responses were 0% or 1–

25% (**Figure 2**). Among the 72 respondents who answered both questions, we found a weak positive correlation between the frequency of patient mentions and self-reported influence on prescribing (Spearman  $\rho = 0.17$ ;  $p = 0.1566$ ). This result was not statistically significant.

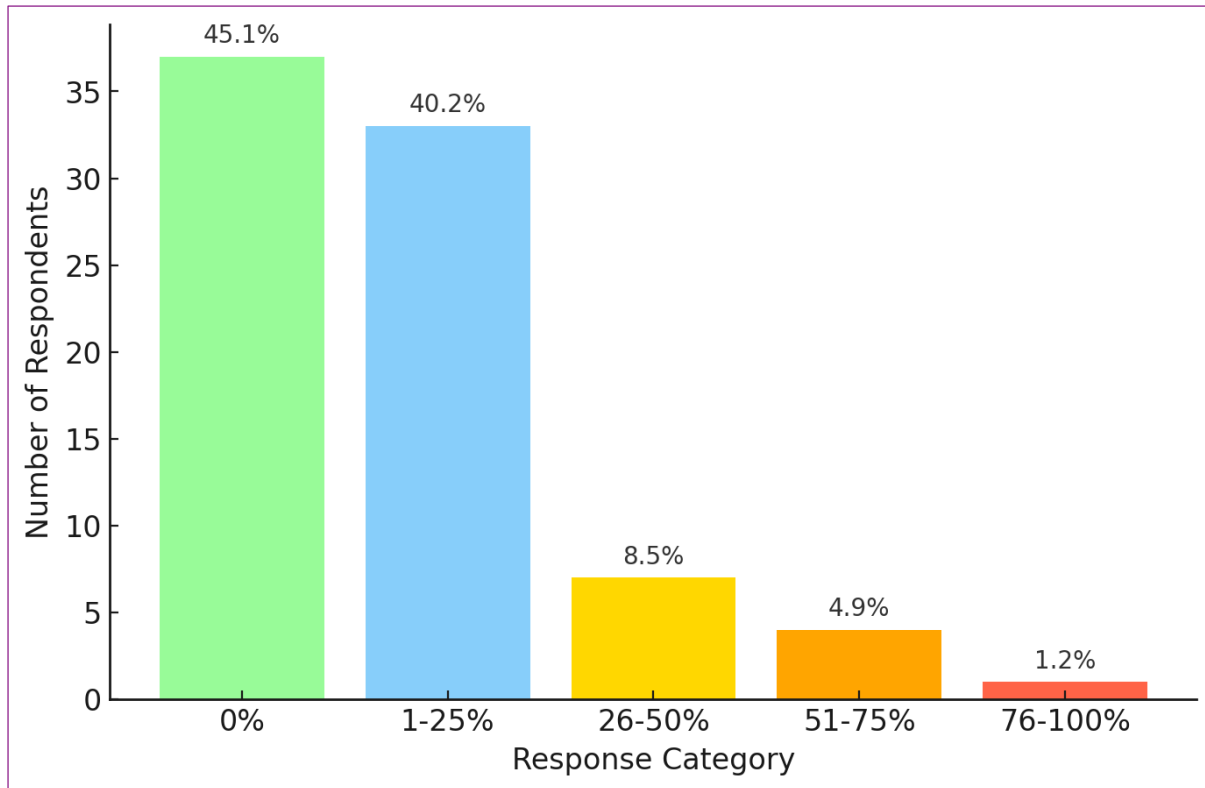


**Figure 1.** Response distribution to survey question 1, “What percentage of your patients with inflammatory skin disease mention a drug with DTC advertising?”

Further descriptive statistics showed that 35 of 72 respondents (48.6%) reported 1–25% of patients mentioning a DTC-advertised drug, and 32 respondents (44.4%) reported being influenced by such mentions 1–25% of the time. Conversely, 25 respondents (34.7%) indicated no influence (0%) on prescribing, highlighting a potential discordance between patient inquiry and clinical decision-making. This discordance points to a limited practical impact of these campaigns in shaping clinical behavior, despite their widespread visibility and cost.

## DISCUSSION

These findings raise important questions about the efficacy and return on investment of direct-to-consumer pharmaceutical advertising in dermatology. In 1997, the Food and Drug Administration (FDA) allowed DTC advertising of prescription drugs on television.<sup>5–7</sup> Between 1997 and 2016, spending on DTC prescription drug advertising increased from \$1.3 billion to \$6 billion, with the number of ads jumping from 79,000 to 4.6 million over the same period.<sup>2</sup>



**Figure 2.** Response distribution to survey question 2, “What percent of the time does DTC directly influence your prescribing?”

Dermatology was second only to diabetes/endocrine in therapeutic category spending, increasing from \$67 million in 1997 to \$605 million in 2016.<sup>2</sup> The findings of our study suggest that while DTC advertising is referenced only by a minority of patients in dermatology visits, it may not substantially drive residents’ clinical decision-making. While nearly half of respondents reported that 1–25% of their patients mention DTC-advertised drugs, over a third indicated that such mentions have no influence on their prescribing decisions. The lack of a statistically significant correlation between patient inquiry and prescribing influence (Spearman  $\rho = 0.17$ ;  $p = 0.1566$ ) further underscores this disconnect. The limited correlation observed likely reflects dermatologist residents’ adherence to evidence-based guidelines and clinical judgment.

Interestingly, a small subset of respondents (8.3%) reported that DTC advertising influences their prescribing more than 50% of the time. This may represent cases where patient awareness aligns with appropriate, guideline-supported options—especially for complex or emerging therapies in inflammatory skin disease. These outliers might also reflect anecdotal circumstances rather than systematic trends, calling into question the effectiveness of such marketing strategies across the broader dermatology landscape.

Limitations of this study include its reliance on self-reported responses, which may be subject to recall or social desirability bias. The sample was drawn from attendees at a single educational session, potentially limiting generalizability to all dermatology practices. Additionally, the survey did not capture contextual factors such as specific

drug classes, patient demographics, or practice settings that may mediate DTC influence.

## CONCLUSION

Given the substantial investment by pharmaceutical companies into DTC advertising, the modest influence observed here suggests that these resources might be better allocated to clinician-focused education, formulary access improvements, or outcomes research. Future research is needed to capture contextual factors and to evaluate the comparative impact and cost-effectiveness of DTC advertising versus other promotional channels in advancing therapeutic adoption and patient outcomes.

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**Corresponding Author:**

Lauren DeBusk, MD  
5959 Harry Hines Blvd 4th Floor Suite 100  
Dallas, TX 75390  
Phone: 865-599-1227  
Email: [ledebusk@gmail.com](mailto:ledebusk@gmail.com)

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