

Patient Experience and Preferences for Treatments in Atopic Dermatitis: Results from a US Patient Survey

Ann P. Quick¹, Lenka V. Hurton¹, Joshua Burshtein², Aaron S. Farberg^{3,4}, Matthew S. Goldberg¹, Olga Zolochovska¹, Peter A. Lio⁵

1 - Castle Biosciences, Inc., Friendswood, TX; 2 - University of Illinois-Chicago, Chicago, IL; 3 - Baylor Scott & White Health System, Dallas, TX; 4 - Bare Dermatology, Dallas, TX; 5 - Northwestern Feinberg School of Medicine, Chicago, IL

Background

- Atopic dermatitis (AD) - a common and often debilitating inflammatory skin disease - is a highly heterogeneous disease and patients have variable clinical responses to treatment.¹
- Improvements in understanding of the molecular underpinnings of the complex pathogenesis and immune dysregulation in AD have led to the development of multiple immune pathway targeted systemic drugs.^{2,3}
- In 2017 the FDA approved dupilumab, an IL-4/IL-13 inhibitor, as the first immune pathway biologic agent available for AD.⁴
- Since December 2021, the FDA has approved 5 additional therapies for adults with moderate-to-severe AD that target other molecular immune pathways:
 - IL-13 inhibitors: tralokinumab and lebrikizumab
 - JAK inhibitors: abrocitinib and upadacitinib
 - IL-31R inhibitor: nemolizumab
- Clinical practice guidelines provide broad treatment support recommendations for the use of targeted systemic therapies but do not specify sequence of use⁵, and clinicians tend to rely on an empirical treatment approach.⁶
- A major factor in therapy selection is patient preference, an aspect of shared decision-making, and is emphasized in clinical practice guidelines.^{5,7}
- The increasing number of options for patients to consider jointly with their treating physician warrants a better understanding of the AD patient perspective to improve patient care.

Objectives

- Better understand patient experiences with contemporary AD treatments.
- Evaluate patient perception of a molecular test to guide therapy selection.

Methods

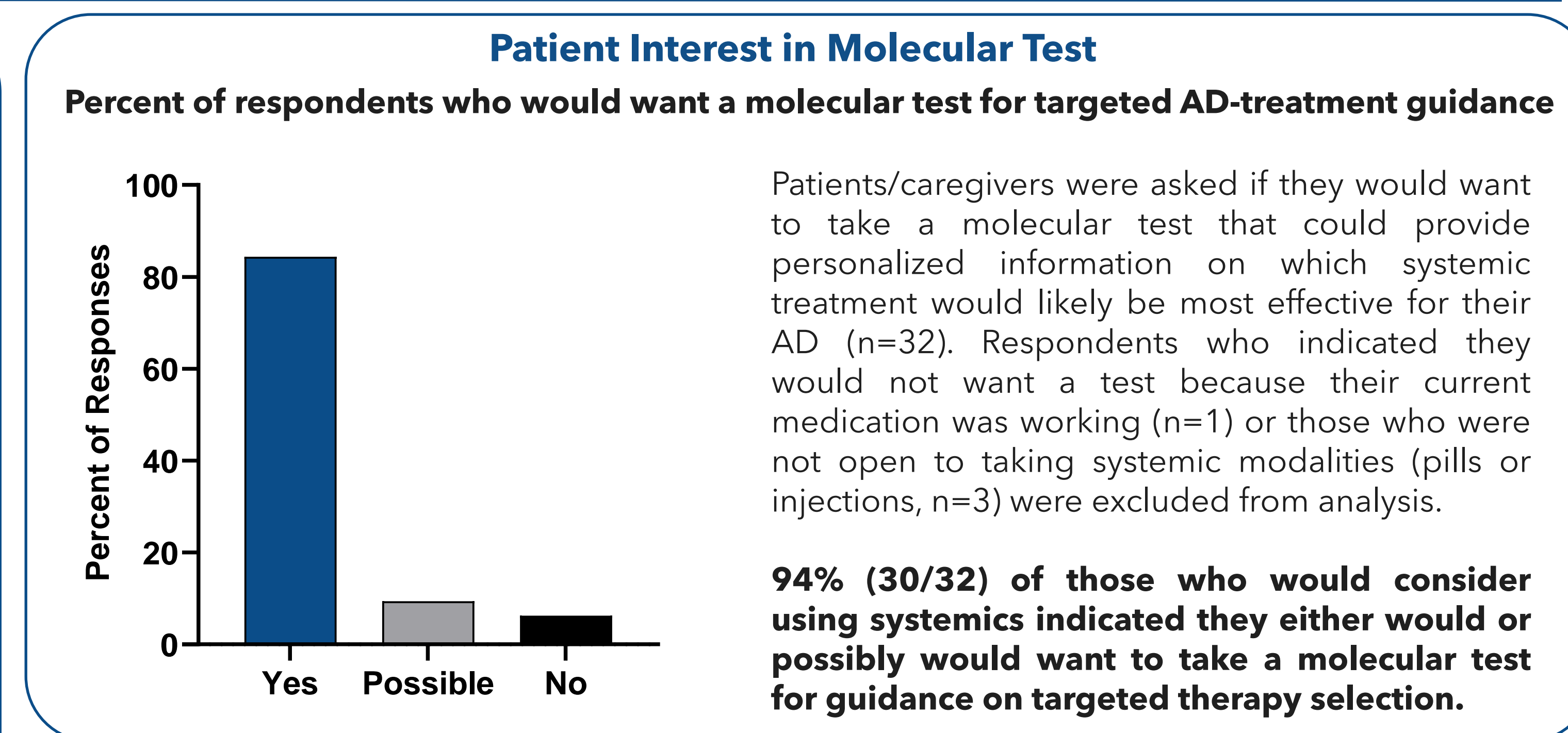
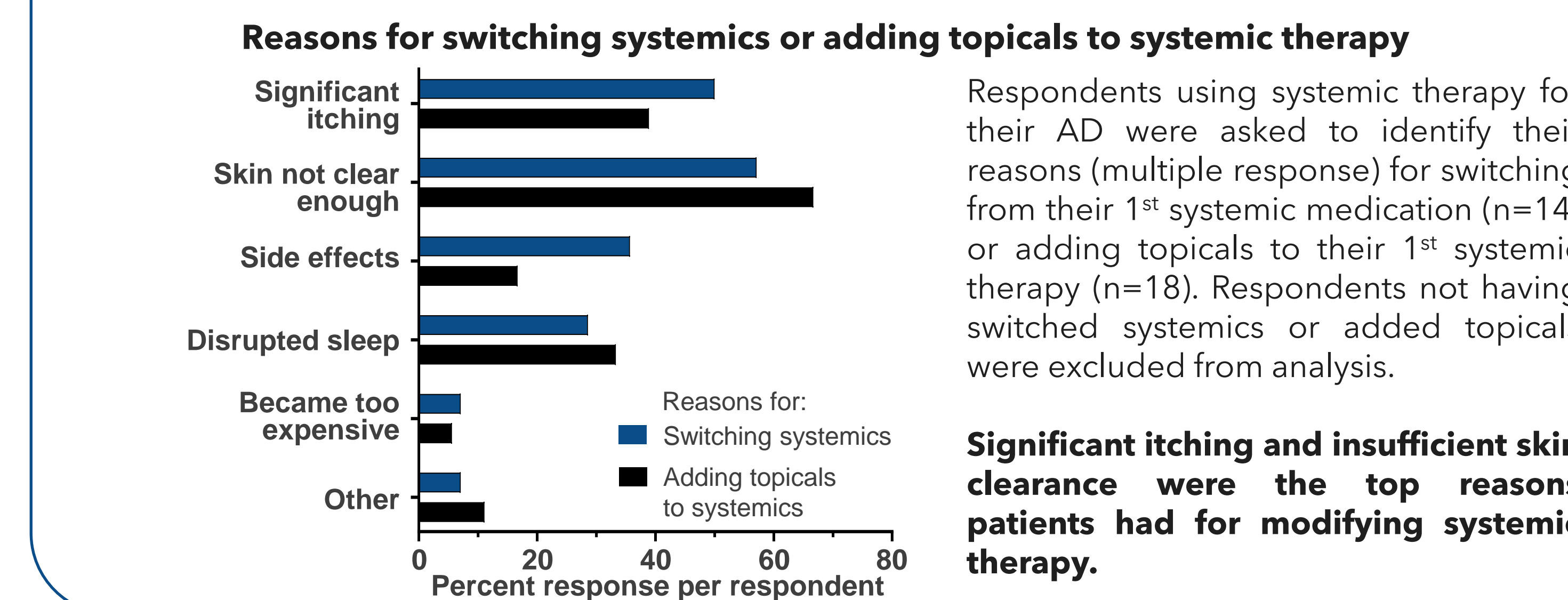
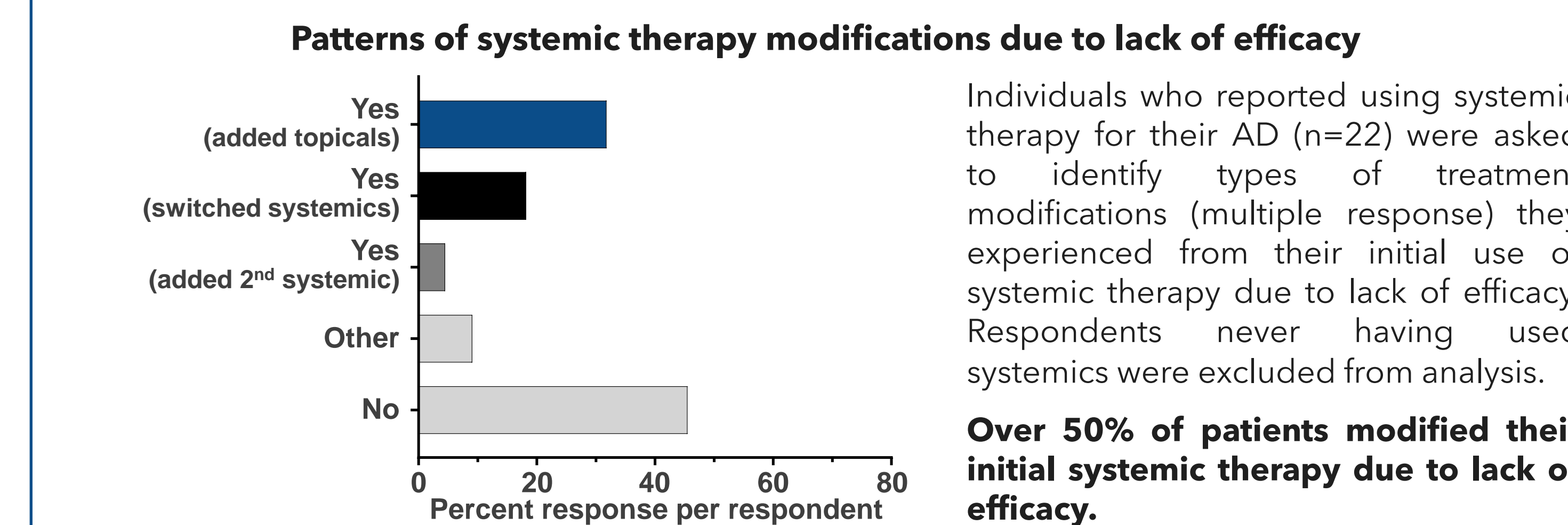
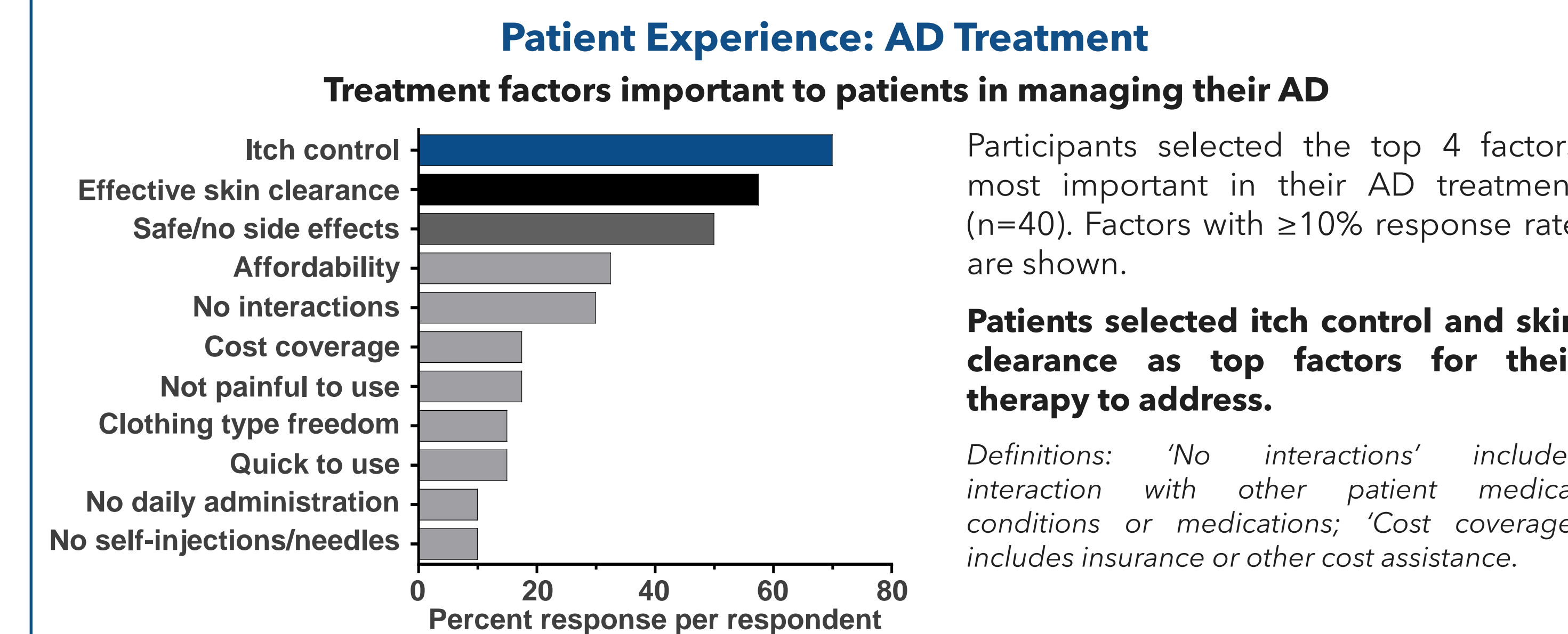
- A 31-question survey (IRB-exempt) was made available to attendees of the National Eczema Association Eczema Expo in 2024.
- Participation was voluntary, not associated with additional data presentation, and participants were not monetarily compensated.
- Individuals with AD <18 years old required a parent or guardian to complete the questionnaire.
- Where questions allowed for multiple responses, results are presented as the percentage of the individual responses out of the number of participants responding to the survey question.

Results

Respondent Demographics	
Respondent type	Respondents, n (%)
Parent or caregiver	15 (34.9)
Individual with AD	28 (65.1)
Age of individual with AD (years)	
<12	6 (14.0)
12 to 17	3 (7.0)
18 to 64	32 (74.4)
≥65	2 (4.6)
Sex	
Female	32 (74.4)
Male	11 (25.6)

Results

Patient Experience: AD Diagnosis	
AD originally misdiagnosed (n = 41)	Respondents, %
Yes	39.0%
No	61.0%
Biopsy to confirm AD diagnosis (n = 43)	
Yes	27.9%
No	72.1%



Conclusions

- The majority of AD was clinically diagnosed without confirmation from biopsy, which can be a confounding factor in identifying an appropriate personalized systemic treatment plan.
- A majority of respondents modified or switched their initial systemic therapy due to lack of efficacy.
- Respondents using systemics and/or topical treatments reported heterogeneous treatment responses indicating a need for a personalized approach to treatment selection.
- Nearly all patients open to using systemics indicated they would want a molecular test to help identify the most effective treatment for their AD.

References

- Leung DYM et al. *Ann Allergy Asthma Immunol.* 2022;129(3):267-268.
- Silverberg JI et al. *J Eur Acad Dermatol Venereol.* 2021;35(9):1797-1810.
- David E et al. *Clin Exp Allergy.* 2023;53(2):156-172.
- Eichenfield et al. *Semin Cutan Med Surg.* 2017;36(4S):S103-S105.
- Davis DMR et al. *J Am Acad Dermatol.* 2024;90(2):e43-e56.
- Aggarwal et al. *Dermatol Ther (Heidelb).* 2022;12(3):611-614.
- Samynathan A et al. *Ann Allergy Asthma Immunol.* 2024;132(3):337-343.

Disclosures & Acknowledgments

- This study was sponsored by Castle Biosciences, Inc.
- APQ, LVH, MSG, and OZ are employees and hold stock and/or stock options in Castle Biosciences, Inc.
- ASF is a consultant for Castle Biosciences, Inc. and on the advisory board for Amgen, Boehringer Ingelheim, Eli Lilly, Galderma, Incyte, Janssen, Novartis, Ortho Dermatologics, Pfizer, and Sun Pharma
- PAL reports research grants/funding from AbbVie, AOBiome, Eczema Foundation, National Eczema Association; is on the speaker's bureau for AbbVie, Eli Lilly, Galderma, Hyphens Pharma, Incyte, La Roche-Posay/L'Oreal, MyOR Diagnostics, ParentMD, Pfizer, Pierre-Fabre Dermatologie, Regeneron/Sanofi Genzyme; reports consulting/advisory boards for AbbVie, Almirall, Amyris, Arbonne, ASLAN, Bodewell, Boston Skin Science, Bristol-Myers Squibb, Burt's Bees, Castle Biosciences, Codex Labs, Concerto Biosci, Dermavant, Dermira, DermVeda, Eli Lilly, Galderma, IntraDerm, Janssen, Johnson & Johnson, Kaleido Biosci, Kimberly Clark, LEO Pharma, Lipidor, L'Oreal, Menlo Therapeutics, Merck, Microcos, MyOR Diagnostics, Regeneron/Sanofi Genzyme, Sibel Health, Skinfix, Sonica, Theraplex, UCB, Unilever, Verrica, Yobee Care; stock options with LearnSkin/Learn Health, Medable, Microcos, Modernizing Medicine, Yobee Care. In addition, Dr. Lio has a patent pending for a Theraplex product with royalties paid and is a Board member and Scientific Advisory Committee Member of the National Eczema Association.