How to Advise Medical Students Interested in Dermatology: A Survey of Academic Dermatology Mentors

Jessica Kaffenberger, MD; Bella Lee, BS; Ammar M. Ahmed, MD

PRACTICE **POINTS**

- Dermatology mentors recommend students apply to 60 or fewer programs, with only a small percentage of faculty routinely recommending students apply to more than 80 programs.
- Dermatology mentors strongly recommend that students should not send a letter of intent to programs, as it rarely is used in the ranking process.
- Dermatology mentors encourage students to ask for letters of recommendation from writers who know them the best, irrespective of the letter writer's rank or title. The type of letter (standardized vs nonstandardized), chair letter, or letters from an away rotation do not hold as much importance.

Dermatology residency programs are among the most competitive residencies of medical specialties. To navigate this competitive process, students seek advice from dermatology mentors who provide a range of responses depending on their experience or preferences. To consolidate this range of advice, we surveyed members of the Association of Professors of Dermatology (APD) on their responses to common questions from medical students regarding quantity of program applications, research gap year, internship year, letters of intent, away rotations, letters of recommendation (LORs), and the new Electronic Residency Application Service (ERAS) supplemental application. Although recommendations given to students remain individualized, our study describes the range of advice received and details the differences between mentor advice and common student practices throughout the application cycle. We hope these data will help mentors in advising students as well as inform organizations seeking to create standards and official recommendations regarding aspects of the application process.

Cutis. 2023;111:124-127.

Dermatology remains one of the most competitive specialties in medicine. In 2022, there were 851 applicants (613 doctor of medicine seniors, 85 doctor of osteopathic medicine seniors) for 492 postgraduate year (PGY) 2 positions.[1] During the 2022 application season, the average matched dermatology candidate had 7.2 research experiences; 20.9 abstracts, presentations, or publications; 11 volunteer experiences; and a US Medical Licensing Examination (USMLE) Step 2 Clinical Knowledge score of 257.[1] With hopes of matching into such a competitive field, students often seek advice from academic dermatology mentors. Such advice may substantially differ based on each mentor and may or may not be evidence based.

We sought to analyze the range of advice given to medical students applying to dermatology residency programs via a survey to members of the Association of Professors of Dermatology (APD) with the intent to help applicants and mentors understand how letters of intent, letters of recommendation (LORs), and Electronic Residency Application Service (ERAS) supplemental applications are used by dermatology programs nationwide.

Methods

The study was reviewed by The Ohio State University institutional review board and was deemed exempt. A branching-logic survey with common questions from medical students while applying to dermatology residency programs (Table) was sent to all members of APD through the email listserve. Study data were collected and managed using REDCap electronic data capture tools hosted at The Ohio State University (Columbus, Ohio) to ensure data security.

Dr. Kaffenberger and Ms. Lee are from the Department of Dermatology, The Ohio State University Wexner Medical Center, Gahanna. Dr. Ahmed is from the Division of Dermatology, Dell Medical School at The University of Texas at Austin.

The authors report no conflict of interest.

This study was presented at the Association of Professors of Dermatology Annual Meeting; September 2022; Chicago, Illinois.

Correspondence: Jessica Kaffenberger, MD, The Ohio State University Wexner Medical Center, Department of Dermatology, 540 Officenter Pl, Ste 240, Gahanna, OH 43230 (Jessica.kaffenberger@osumc.edu).

doi:10.12788/cutis.0727

Copyright Cutis 2023. No part of this publication may be reproduced, stored, or transmitted without the prior written permission of the Publisher.

The survey was distributed from August 28, 2022, to September 12, 2022. A total of 101 surveys were returned from 646 listserve members (15.6%). Given the branching-logic questions, differing numbers of responses were collected for each question. Descriptive statistics were utilized to analyze and report the results.

Results

Residency Program Number—Members of the APD were asked if they recommend students apply to a certain number of programs, and if so, how many programs. Of members who responded, 62.2% (61/98) either always (22.4% [22/98]) or sometimes (40.2% [39/97]) suggested students apply to a certain number of programs. When mentors made a recommendation, 54.1% (33/61) recommended applying to 59 or fewer programs, with only 9.8% (6/61) recommending students apply to 80 or more programs.

Gap Year—We queried mentors about their recommendations for a research gap year and asked which applicants should pursue this extra year. Our survey found that 74.5% of mentors (73/98) almost always (4.1% [4/98]) or sometimes (70.4% [69/98]) recommended a research gap year, most commonly for those applicants with a strong research interest (71.8% [51/71]). Other reasons mentors recommended a dedicated research year during medical school included low USMLE Step scores (50.7% [36/71]), low grades (45.1% [32/71]), little research (46.5% [33/71]), and no home program (43.7% [31/71]).

Internship Choices—Our survey results indicated that nearly two-thirds (63.3% [62/98]) of mentors did not give applicants a recommendation on type of internship (PGY-1). If a recommendation was given, academic dermatologists more commonly recommended an internal medicine preliminary year (29.6% [29/98]) over a transitional year (7.1% [7/98]).

Communication of Interest Via a Letter of Intent—We asked mentors if they recommended applicants send a letter of intent and conversely if receiving a letter of intent impacted their rank list. Nearly half (48.5% [47/97]) of mentors indicated they did not recommend sending a letter of intent, with only 15.5% (15/97) of mentors regularly recommending this practice. Additionally, 75.8% of mentors indicated that a letter of intent never (42.1% [40/95]) or rarely (33.7% [32/95]) impacted their rank list.

Rotation Choices—We queried mentors if they recommended students complete away rotations, and if so, how many rotations did they recommend. We found that 85.9% (85/99) of mentors recommended students complete an away rotation; 63.1% (53/84) of them recommended performing 2 away rotations, and 14.3% (12/84) of respondents recommended students complete 3 away rotations. More than a quarter of mentors (27.1% [23/85]) indicated their home medical schools limited the number of away rotations a medical student could complete in any 1 specialty, and 42.4% (36/85) of respondents were unsure if such a limitation existed.

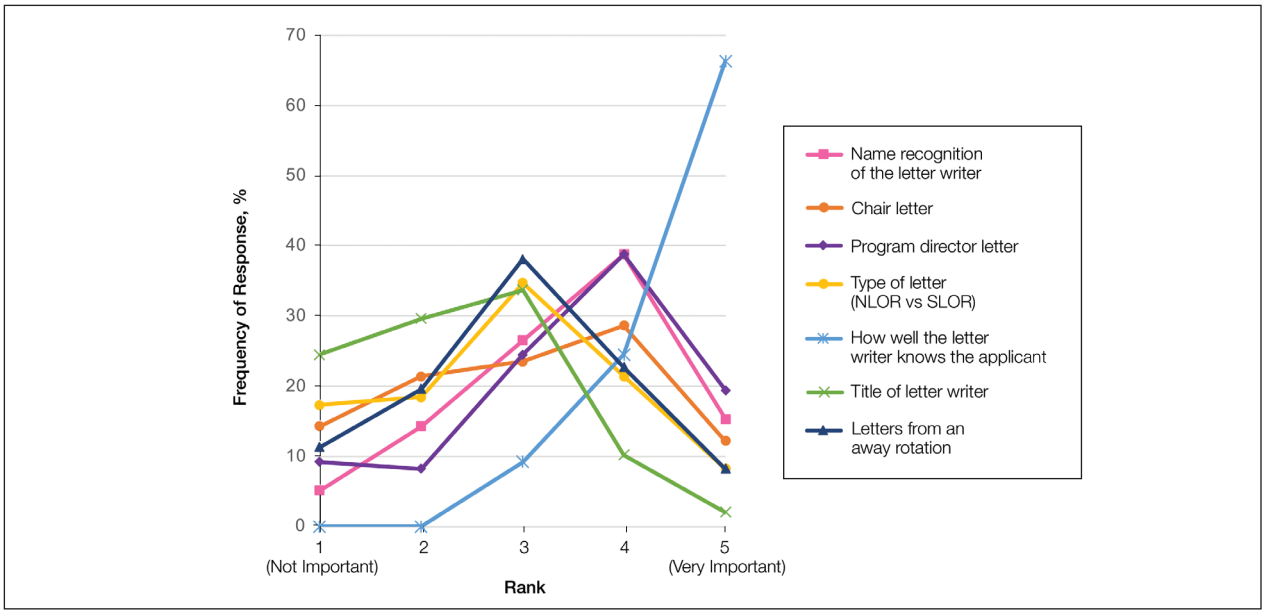
Letters of Recommendation—Our survey asked respondents to rank various factors on a 5-point scale (1=not important; 5=very important) when deciding who should write the students' LORs. Mentors indicated that the most important factor for letter-writer selection was how well the letter writer knows the applicant, with 90.8% (89/98) of mentors rating the importance of this quality as a 4 or 5 (Figure). More than half of respondents rated the name recognition of the letter writer and program director letter as a 4 or 5 in importance (54.1% [53/98] and 58.2% [57/98], respectively). Type of letter (standardized vs nonstandardized), title of letter writer, letters from an away rotation, and chair letter scored lower, with fewer than half of mentors rating these as a 4 or 5 in importance.

Supplemental Application—When asked about the 2022 application cycle, respondents of our survey reported that the supplemental application was overall more important in deciding which applicants to interview vs which to rank highly. Prior experiences were important (ranked 4 or 5) for 58.8% (57/97) of respondents in choosing applicants to interview, and 49.4% (48/97) of respondents thought prior experiences were important for ranking.

Common Questions Academic Dermatologists Receive From Medical Students

How many residency programs should I apply to, and which ones?
Should I take a research gap year?
What should I do for intern year?
Should I send a letter of intent to my program of choice?
How many away rotations should I do?
Who should write my letters of recommendation?
Can you help me with my Electronic Residency Application Service supplemental application?

Copyright Cutis 2023. No part of this publication may be reproduced, stored, or transmitted without the prior written permission of the Publisher.



Ranking the importance (1=not important; 5=very important) of letter of recommendation (LOR) variables by academic dermatologists who mentor medical students (N=101). NLOR indicates nonstandardized letter of recommendation; SLOR, standardized letter of recommendation.

Similarly, 34.0% (33/97) of mentors indicated geographic preference was important (ranked 4 or 5) for interview compared with only 23.8% (23/97) for ranking. Finally, 57.7% (56/97) of our survey respondents denoted that program signals were important or very important in choosing which applicants to interview, while 32.0% (31/97) indicated that program signals were important in ranking applicants.

Comment

Residency Programs: Which Ones, and How Many?—The number of applications for dermatology residency programs has increased 33.9% from 2010 to 2019.[2] The American Association of Medical Colleges Apply Smart data from 2013 to 2017 indicate that dermatology applicants arrive at a point of diminishing return between 37 and 62 applications, with variation within that range based on USMLE Step 1 score,[3] and our data support this with nearly two-thirds of dermatology advisors recommending students apply within this range. Despite this data, dermatology residency applicants applied to more programs over the last decade (64.8 vs 77.0),[2] likely to maximize their chance of matching.

Research Gap Years During Medical School—Prior research has shown that nearly half of faculty indicated that a research year during medical school can distinguish similar applicants, and close to 25% of applicants completed a research gap year.[4,5] However, available data indicate that taking a research gap year has no effect on match rate or number of interview invites but does correlate with match rates at the highest ranked dermatology residency programs.[6-8]

Our data indicate that the most commonly recommended reason for a research gap year was an applicants' strong interest in research. However, nearly half of dermatology mentors recommended research years during medical school for reasons other than an interest in research. As research gap years increase in popularity, future research is needed to confirm the consequence of this additional year and which applicants, if any, will benefit from such a year.

Preferences for Intern Year—Prior research suggests that dermatology residency program directors favor PGY-1 preliminary medicine internships because of the rigor of training.[9,10] Our data continue to show a preference for internal medicine preliminary years over transitional years. However, given nearly two-thirds of dermatology mentors do not give applicants any recommendations on PGY-1 year, this preference may be fading.

Letters of Intent Not Recommended—Research in 2022 found that 78.8% of dermatology applicants sent a letter of intent communicating a plan to rank that program number 1, with nearly 13% sending such a letter to more than 1 program.[11] With nearly half of mentors in our survey actively discouraging this process and more than 75% of mentors not utilizing this letter, the APD issued a brief statement on the 2022-2023 application cycle stating, "Post-interview communication of preference—including 'letters of intent' and thank you letters—should not be sent to programs. These types of communication are typically not used by residency programs in decision-making and lead to downstream pressures on applicants."[12]

Away Rotations—Prior to the COVID-19 pandemic, data demonstrated that nearly one-third of dermatology applicants (29%) matched at their home institution, and nearly one-fifth (18%) matched where they completed an away rotation.[13] In-person away rotations were

Copyright Cutis 2023. No part of this publication may be reproduced, stored, or transmitted without the prior written permission of the Publisher.

eliminated in 2020 and restricted to 1 away rotation in 2021. Restrictions regarding away rotations were removed in 2022. Our data indicate that dermatology mentors strongly supported an away rotation, with more than half of them recommending at least 2 away rotations.

Further research is needed to determine the effect numerous away rotations have on minimizing students' exposure to other specialties outside their chosen field. Additionally, further studies are needed to determine the impact away rotations have on economically disadvantaged students, students without home programs, and students with families. In an effort to standardize the number of away rotations, the APD issued a statement for the 2023-2024 application cycle indicating that dermatology applicants should limit away rotations to 2 in-person electives. Students without a home dermatology program could consider completing up to 3 electives.[14]

Who Should Write LORs?—Research in 2014 demonstrated that LORs were very important in determining applicants to interview, with a strong preference for LORs from academic dermatologists and colleagues.[15] Our data strongly indicated applicants should predominantly ask for letters from writers who know them well. The majority of mentors did not give value to the rank of the letter writer (eg, assistant professor, associate professor, professor), type of letter, chair letters, or letters from an away rotation. These data may help alleviate stress many students feel as they search for letter writers.

How is the Supplemental Application Used?—In 2022, the ERAS supplemental application was introduced, which allowed applicants to detail 5 meaningful experiences, describe impactful life challenges, and indicate preferences for geographic region. Dermatology residency applicants also were able to choose 3 residency programs to signal interest in that program. Our data found that the supplemental application was utilized predominantly to select applicants to interview, which is in line with the Association of American Medical Colleges' and APD guidelines indicating that this tool is solely meant to assist with application review.[16] Further research and data will hopefully inform approaches to best utilize the ERAS supplemental application data.

Limitations—Our data were limited by response rate and sample size, as only academic dermatologists belonging to the APD were queried. Additionally, we did not track personal information of the mentors, so more than 1 mentor may have responded from a single institution, making it possible that our data may not be broadly applicable to all institutions.

Conclusion

Although there is no algorithmic method of advising medical students who are interested in dermatology, our survey data help to describe the range of advice currently given to students, which can improve and guide future recommendations. Additionally, some of our data demonstrate a discrepancy between mentor advice and current medical student practice for the number of applications and use of a letter of intent. We hope our data will assist academic dermatology mentors in the provision of advice to mentees as well as inform organizations seeking to create standards and official recommendations regarding aspects of the application process.

REFERENCES

1. National Resident Matching Program. *Results and Data: 2022 Main Residency Match*. May 2022. Accessed February 21, 2023. https://www.nrmp.org/wp-content/uploads/2022/05/2022-Main-Match-Results-and-Data_Final.pdf
2. Secrest AM, Coman GC, Swink JM, et al. Limiting residency applications to dermatology benefits nearly everyone. *J Clin Aesthet Dermatol*. 2021;14:30-32.
3. Apply smart for residency. Association of American Medical Colleges website. Accessed February 21, 2023. https://students-residents.aamc.org/apply-smart-residency
4. Shamloul N, Grandhi R, Hossler E. Perceived importance of dermatology research fellowships. Presented at: Dermatology Teachers Exchange Group; October 3, 2020.
5. Runge M, Jairath NK, Renati S, et al. Pursuit of a research year or dual degree by dermatology residency applicants: a cross-sectional study. *Cutis*. 2022;109:E12-E13.
6. Costello CM, Harvey JA, Besch-Stokes JG, et al. The role of race and ethnicity in the dermatology applicant match process. *J Natl Med Assoc*. 2022;113:666-670.
7. Costello CM, Harvey JA, Besch-Stokes JG, et al. The role research gap years play in a successful dermatology match. *Int J Dermatol*. 2022;61:226-230.
8. Ramachandran V, Nguyen HY, Dao H Jr. Does it match? analyzing self-reported online dermatology match data to charting outcomes in the Match. *Dermatol Online J*. 2020;26:13030/qt4604h1w4.
9. Hopkins C, Jalali O, Guffey D, et al. A survey of dermatology residents and program directors assessing the transition to dermatology residency. *Proc (Bayl Univ Med Center)*. 2021;34:59-62.
10. Stratman EJ, Ness RM. Factors associated with successful matching to dermatology residency programs by reapplicants and other applicants who previously graduated from medical school. *Arch Dermatol*. 2011;147:196-202.
11. Brumfiel CM, Jefferson IS, Rinderknecht FA, et al. Current perspectives of and potential reforms to the dermatology residency application process: a nationwide survey of program directors and applicants. *Clin Dermatol*. 2022;40:595-601.
12. Association of Professors of Dermatology. Residency Program Directors Section. *Updated Information Regarding the 2022-2023 Application Cycle*. Updated October 18, 2022. Accessed February 24, 2023. https://www.dermatologyprofessors.org/files/APD%20statement%20on%202022-2023%20application%20cycle_updated%20Oct.pdf
13. Narang J, Morgan F, Eversman A, et al. Trends in geographic and home program preferences in the dermatology residency match: a retrospective cohort analysis. *J Am Acad Dermatol*. 2022;86:645-647.
14. Association of Professors of Dermatology Residency Program Directors Section. *Recommendations Regarding Away Electives*. Updated December 14, 2022. Accessed February 24, 2022. https://www.dermatologyprofessors.org/files/APD%20recommendations%20on%20away%20rotations%202023-2024.pdf
15. Kaffenberger BH, Kaffenberger JA, Zirwas MJ. Academic dermatologists' views on the value of residency letters of recommendation. *J Am Acad Dermatol*. 2014;71:395-396.
16. *Supplemental ERAS Application: Guide for Residency Program*. Association of American Medical Colleges; June 2022.

Copyright Cutis 2023. No part of this publication may be reproduced, stored, or transmitted without the prior written permission of the Publisher.