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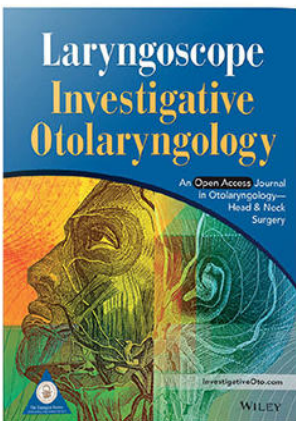


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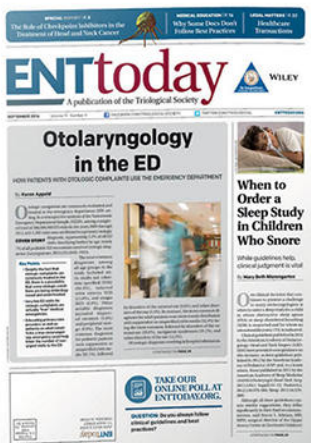
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Otolaryngology Residency Interviewing Dates and Practices: What Should an Applicant Expect?

Andrew H. Lee, MD ; Ross Liao, BS; Patrick Young, BS; Paul H. Yi, MD; Douglas Reh, MD;
David W. Eisele, MD; Alexander T. Hillel, MD 

Objectives/Hypothesis: Scheduling otolaryngology interviews may be a challenge for residency applicants due to overlapping interview dates. Our objective was to identify otolaryngology interview date patterns and scheduling conflicts over the past six application cycles.

Study Design: Retrospective review of otolaryngology online forums (Otomatch.com and Student Doctor Network).

Methods: Online threads related to residency interview dates posted during the 2012 to 2013 through 2017 to 2018 interview seasons on Otomatch.com were reviewed. Program directors were contacted to complete any missing data. The χ -goodness-of-fit test and the χ^2 test of independence was used to compare proportions. Analysis of variance was used to compare values across years.

Results: Data from an average of 98 programs (99%) per year were obtained. The majority of invitations arrived late October (49%), followed by early November (37.1%). Interviews occurred primarily in December (48.4%) and January (37.5%). Programs on average scheduled 2.47 (range, 0–4) interview dates. Most interviews fell on Fridays (28.7%) and Saturdays (22.7%) ($P < .0001$), with an increasing trend toward interviewing on consecutive days. There was substantial overlap in interview dates, with six dates alone accounting for an average of 31.3% of all interviews in a given interview cycle.

Conclusions: The majority of otolaryngology interviews occur in December or January and fall on a Friday or Saturday. There is considerable overlap with the potential for scheduling conflicts. Our findings can help set expectations for applicants regarding interview invitations, as well as a strategy for scheduling interviews.

Key Words: Interview dates, interviewing, residency match.

Level of Evidence: NA

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INTRODUCTION

Otolaryngology residency remains a highly competitive residency to match into for US medical students. US medical students applying into otolaryngology–head and neck surgery (OHNS) are generally excellent, with superior United States Medical Licensing Examination board scores and preclinical and clinical clerkship grades. According to the 2016 National Resident Matching Program (NRMP) Charted Outcomes, approximately 11% of total applicants to OHNS failed to match into a residency program, compared to 8% overall.¹ Furthermore, the average step 1 score for matched US allopathic OHNS applicants was 248, compared to an overall mean step 1 score of 233 among matched students.¹

The competitiveness of applying to OHNS residency has changed medical students' perceptions and trends of applying to residency. At a single institution in 2015, approximately 80% of third- and fourth-year medical students rated matching into OHNS residency as “impossible” or “near impossible.”² Medical students' concern about their odds of matching into OHNS residency may be reflected in both the declining number of applicants into OHNS as well as the increasing number of applications submitted by each applicant.^{3–5} These trends are perhaps best exemplified in 2017, when 14 residency slots went unmatched across 10 programs and again in 2018 when 12 positions went unfilled.^{6–8}

In light of these trends, it is more important than ever for a medical student applying to an OHNS residency to be mentored in a way that will equip them with knowledge for a successful match. One way otolaryngologists can mentor medical students is through knowledge of the residency application and the match process. Similar to other competitive fields, scheduling residency interviews in OHNS can be challenging, with many programs offering relatively few interview dates, which can result in interview scheduling conflicts. However, it remains unknown what the interview date patterns and practices are for OHNS residencies. Therefore, the purpose of this study was to characterize OHNS residency interview date patterns and potential scheduling conflicts over the last six application cycles.

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Trends in Timing of 1st Interview Invites

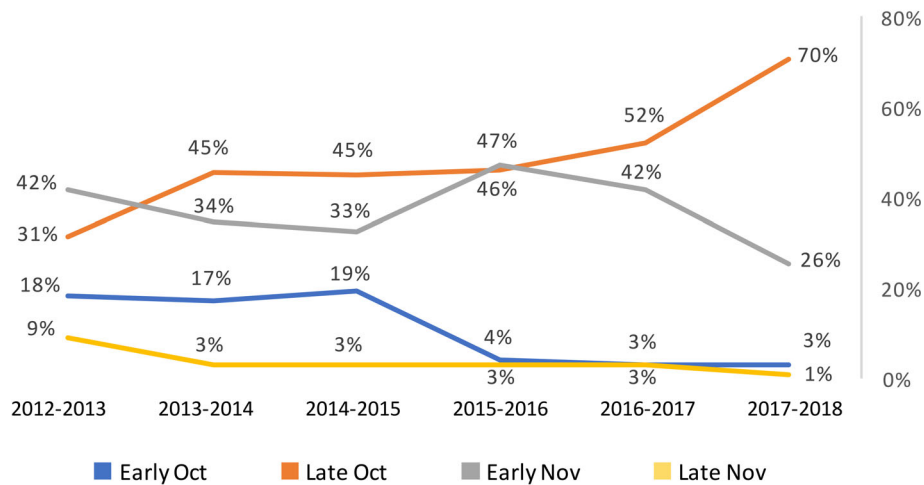


Fig. 1. Trends in timing of first-interview invites: The majority of first-wave interviews were sent out in late October and early November, with an increasing trend in late October invitations. Early = first 2 weeks; Late = last 2 weeks. [Color figure can be viewed in the online issue, which is available at www.laryngoscope.com.]

MATERIALS AND METHODS

Otomatch (www.otomatch.com) and Student Doctor Network (SDN) (<http://www.studentdoctor.net>), both publicly accessible websites featuring information and news regarding the OHNS residency match, were reviewed for threads posted during the 2012 to 2013 through 2017 to 2018 residency application seasons. Otomatch represented the primary source of interview information, whereas SDN was cross-referenced to confirm accuracy of interview dates by verifying agreement of the dates and to fill in gaps in missing Otomatch data.

Anonymous medical student users regularly updated the threads with OHNS residency interview dates, as well as the day that an interview invitation was offered. We reviewed all programs listed on this thread for date of initial interview offer, number of interview dates, and the month and day of the week of the interview date. Number of interviews, day of the week, interview overlap, and number of days between interviews were derived from the provided interview dates. Incomplete interview data and data for number of applicants interviewed were obtained by contacting program coordinators directly.

We utilized descriptive statistics to summarize the above data (means, minimum, maximum, standard deviation, and percentages). These were calculated using Microsoft Excel 2017 (Microsoft, Redmond, WA,). The χ^2 goodness-of-fit test was used to compare proportions within the same year, and the χ^2 test of independence was used to compare proportions across years. This was performed using an online calculator (quantpsy.org). Analysis of variance was used to compare values across years, and comparison of means was used to compare values across two specific years using an online calculator (Good Calculators; <https://goodcalculators.com>). A *P* value <.05 was taken to be significant.

RESULTS

Interview Invitations

Data from an average of 98 programs (98%) per year was obtained over the past six consecutive application cycles. The majority of first wave invitations arrived in late October (October 16–31) (49%), followed by early

November (November 1–15) (37.1%). There was a trend toward an increasing number of programs moving their initial interview invites to late October. This trend was most apparent in the 2017 to 2018 application cycle, when late October invites increased from 52% to 72% (*P* = .12). Other notable but nonsignificant changes included a reduction in early October invites from 19% to 4% in the 2015 to 2016 interview cycle and a drop in early November interviews from 41% to 26% in the 2017 to 2018 interview cycle (*P* = .065) (Fig. 1).

Interview Dates

There was an average of 242.2 ± 4.2 potential interview days per interview cycle and an average of 57.8 ± 3.8 discrete interview dates (range, 55–65) over the past six interview cycles. Interviews occurred primarily in December (48.4%) and January (37.5%), followed by November

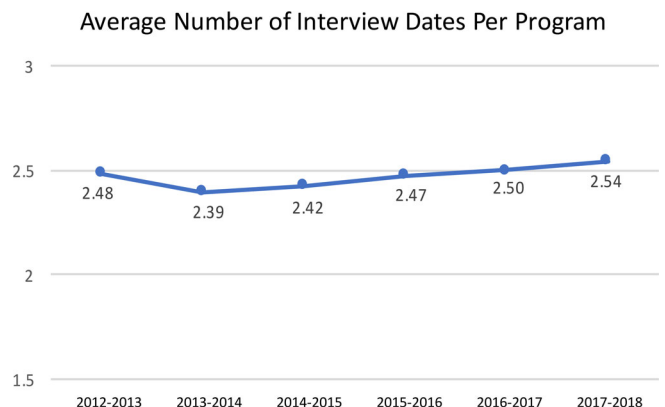


Fig. 2. Average number of interview dates held per program. The average number of invitations held steady over the past six interview cycles. [Color figure can be viewed in the online issue, which is available at www.laryngoscope.com.]

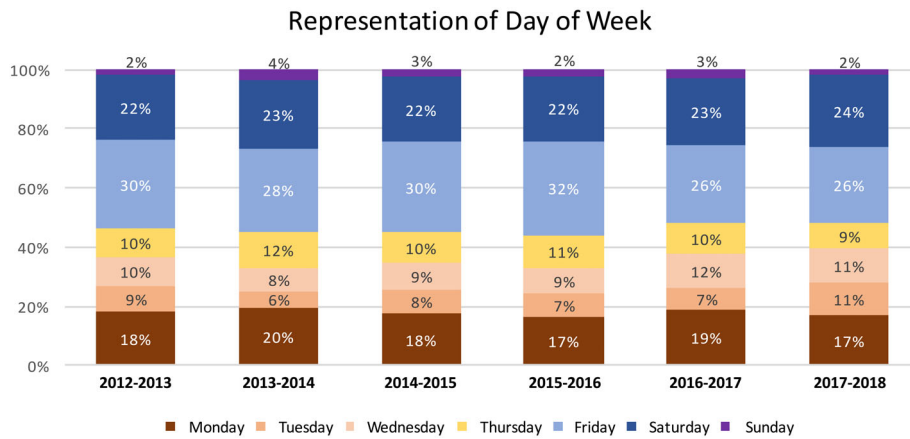


Fig. 3. Representation of the day of the week. The majority of interviews occurred on Fridays, Saturdays, and Mondays, and rarely occurred on Sundays ($P < .0001$). This distribution held steady across the past six interview cycles. [Color figure can be viewed in the online issue, which is available at www.laryngoscope.com.]

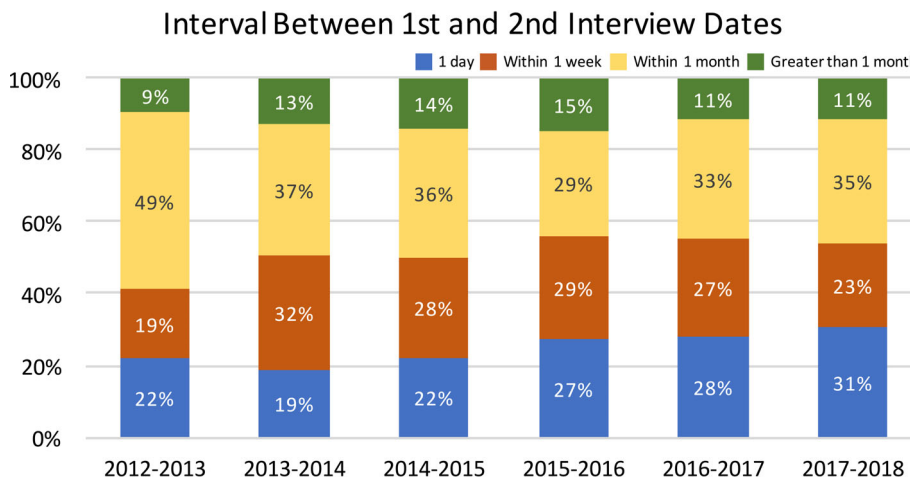


Fig. 4. Interval between first and second interview dates. The majority of interviews occurred within 1 month of one another. There is an increasing, but nonsignificant, trend of programs holding back-to-back interview dates. [Color figure can be viewed in the online issue, which is available at www.laryngoscope.com.]

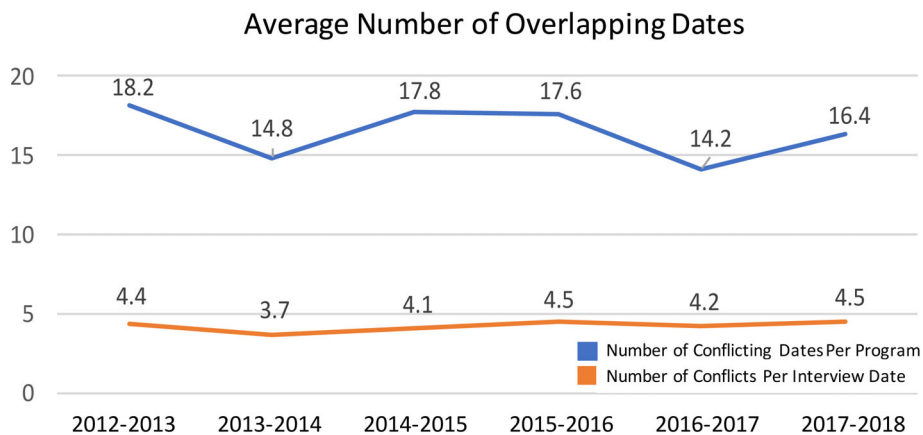


Fig. 5. Average number of overlapping dates. The average number of conflicting dates per program held steady over time, except for a drop in 2016 to 2017 ($P = .007$). The average number of conflicts per interview date has held relatively steady. [Color figure can be viewed in the online issue, which is available at www.laryngoscope.com.]

		2012-2013							2013-2014							2014-2015							2015-2016							2016-2017							2017-2018													
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December		3	2	6	1	6	5	0	5	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	1	2	4	14	10	0	3	3	3	1	9	12	1							
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Fig. 6. Heat map of overlapping interview dates. Dates that consistently had high rates of overlap include the first and second Fridays and Saturdays of December, and the first Friday and Saturday in the first full week of January. Interviews never occurred from the Sunday prior to Christmas until New Years Day. Christmas tree denotes Christmas day. [Color figure can be viewed in the online issue, which is available at www.laryngoscope.com.]

(12.5%), and this remained steady without any notable changes over the past six interview cycles. Overall, very few programs held interviews in October (0.5%) or February (1.2%), with no programs holding interviews in October in the last two interview cycles.

Programs on average scheduled 2.47 ± 0.7 interview dates (range, 1–5; $n = 595$), with the average number of interview dates per program holding steady over the past six interview cycles ($P = .93$) (Fig. 2). The interviews were not evenly distributed across the days of the week ($P < .0001$). Interviews occurred primarily on Fridays (28.7%), Saturdays (22.7%), and Mondays (18.00%). The least common dates for interviews were Sunday (2.5%) and Tuesday (8.0%). There was no notable nor significant change in the trend with respect to the day of the week that interviews occurred over the past six interview cycles ($P = .97$) (Fig. 3). However, there was an increasing but nonsignificant trend toward interviewing on consecutive days, with 19% of second-interview dates occurring 1 day after the first in the 2013 to 2014 cycle compared to 31% in the most recent 2017 to 2018 interview cycle ($P = .052$) (Fig. 4).

Interview Date Conflicts

Given the fairly specific parameters on which interview dates tended to occur, there was a high degree of interview overlaps. On average, programs had 16.5 ± 9.4 conflicts with another program, and the number of average conflicting interviews per individual date was 4.2 ± 3.8 (range, 1–21) conflicts (Fig. 5). Six dates (10.4%) alone accounted for an average of nearly one-third ($31.3\% \pm 3.4\%$; range, 26.6%–34.4%) of the interviews held in a given year. These trends have generally held steady, with minimal variation between years for conflicts for a given program ($P = .75$) and conflicting dates ($P = .48$), except in 2016 to 2017 when the average number of overlapping dates fell to 14.2 ($P = .007$).

A heat map looking at November through January interview dates was created to better visualize the number of interview conflicts over the past six interview

cycles (Fig. 6). Notable days that consistently had high rates of overlap include the first and second Fridays and Saturdays of December, the first Monday of December, and the first Friday and Saturday in the first full week of January. Interviews never occurred from the Sunday prior to Christmas until New Year's Day.

DISCUSSION

Our objective was to identify OHNS interview date patterns and trends with the purpose of aiding applicants with interview scheduling strategies and to ultimately increase the chance of a successful match. We were able to achieve this by mining readily available crowd-sourced data from widely used internet forums. Otomatch, in particular, has provided a forum for OHNS match-related questions since 2001 and is populated by thousands of posts, with those pertaining to interview dates generating the most views.⁹ Kozin et al. has established Otomatch as a valuable primary data source to understand the perception of applicants and to provide insights on how to improve the match process.⁹ To our knowledge, this is the first study across any specialty to investigate the use of a Web-based discussion forum to investigate the properties and trends in residency interview dates.

The importance of knowing interview date patterns and practices is emphasized by the fact that the most-cited reason by OHNS applicants in 2016 for declining an interview offer was a scheduling conflict with another scheduled interview.¹⁰ Our results elucidate trends in the timing of interview invitations, provide a means of predictably identifying the most congested dates, and thus offer a strategy for scheduling interviews.

Our results showed that first-wave interviews were most commonly offered in late October and early November, with an increasing trend of offering invitations in late October. We are aware of only one other study that has assessed residency interview invitation offers, with the specialty of emergency medicine (EM) demonstrating similar findings of at least 44% of EM programs releasing interview invitations prior to

November 1.¹¹ The invitation window in OHNS appears to be narrowing, which may be due to agreements in the past 3 years through the Otolaryngology Program Directors Organization (OPDO) to coordinate time windows when interviews are first offered.¹² Of note, this offer window is voluntary, and part of the success of this initiative is dependent on compliance from programs. Overall, this trend is helpful for students to know, as setting expectations on when invitations may arrive may help to ease anxiety. Furthermore, knowing when interviews are likely to be extended may allow students to schedule lighter rotations or those allowing ready access to their computers or emails during that time.

With respect to the timing of the interview dates, we have found that applicants can predictably identify the dates that are expected to be the most congested in the upcoming interview cycle. Six dates alone remarkably accounted for an average of nearly one-third of the interviews held in a given year. These six dates were primarily a combination of the first and second Fridays and Saturdays of December, the first Monday of December, or the first Friday and Saturday in the first full week of January.

The appeal of these dates to programs is understandable. Saturdays are likely the least intrusive to clinical duties for both faculty and residents. Furthermore, the appeal of having back-to-back dates is more possible in a Friday/Saturday scenario. This schedule is appealing to programs in that applicants could arguably be compared more fairly due to their being more equally memorable. Furthermore, programs may potentially have a financial incentive, as they could schedule one interview dinner instead of one for each interview. Finally, the appeal of completing the interview process over 2 days and creating a final rank list in a short amount of time cannot be understated.

Information predicting date congestion could be useful to applicants in several possible scenarios. For instance, if an applicant is on a rotation such as EM, where he or she must schedule on-call dates in advance, they may be more equipped to schedule on less congested dates. Furthermore, if an applicant were to receive an invitation to a program that includes a Thursday, they may be more inclined to select that date with the expectation that there would be less conflicts that day. Furthermore, knowing the dates that never have interviews, such as the Sunday prior to Christmas until New Year's Day, could help to set advanced work schedules or allow the applicant to plan a well-deserved vacation without fear of missing out.

Conflicting dates are typically seen as a problem to be avoided to the benefit both applicants and residency programs. Several studies have described or have proposed solutions to the phenomenon of conflicting dates. For example, Cabrera-Muffly et al., reported that 74% of applicants declined an interview offer due to scheduling conflicts.¹⁰ Wong proposed an early decision plan to match highly desirable applicants early and eliminate these applicants from the general interview pool to avoid hoarding.¹³ Other fields, such as EM, have attempted a simple regionalization effort by

coordinating two Chicago program interviews to occur on back-to-back days and maximize applicant yield. In that study, the authors reported that over half of respondents noted that they would not have made a second trip to Chicago had the dates not been coordinated.¹⁴

Although overlapping dates may be seen as a burden to both applicants and programs, they likely play an important role in leading to a mutually successful match. Of note, the year with the least overlapping dates was in 2016 to 2017, which was the year that 10 programs entered the Supplemental Offer and Acceptance Program to fill 14 unmatched spots for OHNS residency.^{6,7} Although this factor alone fails to account for the high number of unmatched spots, conflicting dates may play an important role in the match, as they force applicants to decide in advance the programs they would prefer to attend. Accordingly, interview conflicts prevent programs from interviewing the same small subset of applicants, all of whom can only ultimately match at one program. The 2016 NRMP Charting Outcomes in the Match data showed that as few as 26% applicants accounted for 50% of the interview positions.¹ In isolation, failing to avoid conflicting dates may appear to hurt applicants who only receive a handful of interviews. However, such a hypothetical scenario would also be occurring in the context where more interviews are freed up, potentially providing such an applicant with new opportunities. Taken together, this phenomenon contradicts that traditional notion that programs should strive to avoid overlapping dates and provides an alternative view.

Limitations

We acknowledge several limitations with the study. First, Otomatch and SDN are anonymous, and the interview dates are self-reported. Hence, there is potential for error or deliberate misleading. However, the consistent use of these threads and the importance of these forums for applicants over the years suggest their reliability. Furthermore, cross-checking of known interview dates (e.g., ones that the author himself attended or asking program coordinators) were routinely accurate. To that end, despite the prominence of Otomatch as a resource, we would direct applicants and mentors to the OPDO site as a more official resource for accurate and reliable information on interview dates.

The data also may fail to take into account certain nuances of interview dates that may not be apparent on a self-reported forum. For instance, our study did not parse out interviews lasting longer than 1 day or offer T-32-specific interview dates. Furthermore, we did not take into account programs that may interview candidates outside of published interview dates, such as those that interview immediately after a subinternship. Nonetheless, we believe that such dates do not comprise a wide portion of the interview dates and do not appreciably affect the results.

CONCLUSION

We used crowd-sourced data to describe and identify trends in OHNS residency interview practices. The majority of OHNS interview invitations occur in late October and early November. Interviews generally occur in December or January and fall on a Friday or Saturday. There is considerable overlap with potential for scheduling conflicts. Moreover, these findings have generally remained steady and do not appear to have not changed significantly over the past six interview cycles. With preexisting knowledge about interview date patterns and practices, medical students applying to OHNS can more strategically plan residency interviews to increase the number of interviews. Furthermore, this information can provide empiric data to help program directors and mentors guide medical students who are preparing to enter the match.

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