Residency Program Signaling and Interview Scheduling: Time to Work Together for a Smoother UME-GME Transition

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Early data on residency application program signaling is promising for medical student applicants and for residency program directors (PDs); signaling may lower inflated application numbers.[1-3] A residency application "signal" is akin to a "star" that indicates student applicant interest in the residency program, helping PDs to discern applicants who truly want to work in their program. Signals provide applicants with an avenue to express preferences. With fewer applications from students lacking sincere interest, programs can potentially holistically review files and focus recruitment on those most interested and likely to thrive in their programs. There is wide variety between specialties in the number of signals permitted, as shown in TABLE 1, which includes all specialties available for postgraduate year (PGY) 1 or PGY-2 application in the standard residency Match in rank order by number of available positions.[4]

The specialties that have moved to more permitted signals (15-30) are achieving outcomes acceptable to students and for the programs, whereas those with 3 to 5 signals have added complexity without clear benefit.[5,6] Applicants to orthopedics (30 signals), otolaryngology (25), dermatology (28), and obstetrics and gynecology (OB/GYN) (18) are saving money[7] and not interviewing at programs where they have little interest. Meanwhile, residency leaders in these fields can review a manageable number of files for the first time in decades.[1,3,7] If fewer applications indeed lead to fewer but better aligned interviews, students could dedicate more of their final year of medical school to knowledge consolidation and residency preparation, improving the undergraduate medical education (UME) to graduate medical education (GME) transition. Given the substantial stressors of the residency application process, the available data on signaling should motivate stakeholders, including residency programs, PD organizations, applicants, and the student affairs community to expeditiously collaborate on a standardized signaling approach.

While more signals is a first step toward student agency, 2-tiered signaling offers applicants further expression of preferences. A smaller number of top-interest or "gold" signals and sufficient total or "silver" signals allows students to express strong preferences and explore additional programs. Dermatology (3 gold, 25 silver) and OB/GYN (3 gold, 15 silver) are examples of specialties that have done this well, with appropriate total signal numbers and gold-to-silver ratios based on likely total number of applicants and available positions. While applicants are free to apply to more programs than they can signal, they are increasingly aware that signaled applications are more likely to result in an interview.[1,5,8] For applicants to specialties with a tiered signal system, an interview is unlikely with no signal, likely with a gold signal, and somewhere in between with a silver signal.

The GME and UME communities should collaborate on using data from the first few signaling cycles to optimize program signaling, to reduce the confusion and burden placed on applicants and programs. Medical schools and the GME community should be working together to decrease "waste" in the system for all specialties by safely reducing excessive applications for programs to review and excessive interviews for students to complete. Yet the landscape of signals per specialty for the 2025 residency Match remained widely variable and does not systematically optimize the power of signaling for applicants or specialties (TABLE 1). The number of signals in each specialty should instead be based on a combination of the number of positions available nationally, the median program size, and the anticipated number of applicants. While there should be standardized variation in the number of signals, it is not clear why emergency medicine (EM) provides 5 signals and anesthesiology provides 15, despite similar metrics in total positions, median number of residents per program,

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TABLE 1
Specialty Statistics, Current Signal Numbers, and Proposed Signal Numbers

Specialty	Total No. of Positions	Total No. of Programs	Average Program Size	Average No. of Programs Applied to for US MDs/DOs (2025)	Match Rate for US MDs, %	Match Rate for US DOs, %	Current Signals	Suggested Signals
Internal medicine	10 680	707	15	31/58	98	95	3 gold, 12 silver	3 gold, 10 silver
Family medicine	5213	796	6.5	31/46	99	97	5	3 gold, 10 silver
Pediatrics	3078	251	12	28/50	100	99	5	3 gold, 10 silver
Emergency medicine	3026	292	10	41/50	98	96	5	3 gold, 12 silver
Psychiatry	2261	382	6	62/81	89	81	10	3 gold, 12 silver
Anesthesia	2000	210	10	44/68	85	58	5 gold, 10 silver	3 gold, 12 silver
Transitional year	1747	217	8	17/28	94	90	12	3 gold, 10 silver
General surgery	1717	363	5	59/74	82	68	15	3 gold, 15 silver
Obstetrics and gynecology[a]	1539	291	5	59/75	86	67	3 gold, 15 silver	3 gold, 15 silver
Radiology	1017	170	6	65/77	86	65	6 gold, 6 silver	3 gold, 12 silver
Orthopedics	916	218	4	46/52	73	48	30	3 gold, 25 silver
Neurology	878	148	6	41/58	94	85	8	3 gold, 15 silver
Pathology	678	177	4	34/43	98	83	5	3 gold, 12 silver
Dermatology	547	161	3.4	43/62	71	47	3 gold, 25 silver	3 gold, 25 silver
Ophthalmology[a]	521	120	4	85/90	86	8		3 gold, 25 silver
Urology	394	148	2.6	54/unavailable	73	58	30	3 gold, 25 silver
Internal medicine-pediatrics	390	77	5	31/33	86	64		3 gold, 15 silver
Otolaryngology	382	138	3.6	47/59	82	63	25	3 gold, 25 silver
Physical medicine and rehabilitation	336	69	5	49/61	85	73	8	3 gold, 15 silver
Neurosurgery	241	116	2	68/69	68	25	25	3 gold, 25 silver
Plastic surgery[a]	213	92	2	30/22	62	N/A	5	3 gold, 25 silver
Child neurology	184	79	2	27/31	97	83	3	3 gold, 15 silver
Radiation oncology	175	80	2	39/46	98	62	4	3 gold, 15 silver
Vascular surgery	100	79	1.2	57/35	76	11	0	3 gold, 25 silver
Thoracic surgery	48	34	1.3	27/unavailable	46	20	3	3 gold, 25 silver

[a] Specialties where most programs do not use the Electronic Residency Application Service.
Abbreviation: N/A, not available.

and size of the applicant pool.[4,8] With only 5 signals, EM PDs will need to review many "unsignaled" applications, which does not benefit the applicants or the programs. The anesthesiology PDs can spend most of their time carefully reviewing the applications with signals and review additional applications only if the signaled pool fails to provide enough applicants for interviews.

TABLE 1 lists the number of programs, the average size of the program, and the Match rate for US allopathic (MD) and osteopathic (DO) students.[4] The penultimate column lists the number of signals per specialty for the 2025 Match, which generally does not correlate with the preceding columns. In the final column of TABLE 1, we propose a standardized signal number across specialties that is correlated with the

number of available residency positions, the average program size, and the average number of programs applied to by US students. This could lead to a better alignment of residency programs receiving an appropriate number of signaled applications and provide students with a recommended number of programs to consider. It includes the ability for all applicants to submit 3 top-tier gold signals. These gold signals are especially important for students seeking to reunite with spouses or other family members in particular cities. To create a fairer playing field, programs should maximize transparency and publish the numbers of signals received in prior cycles as well as the percentage of those interviewed who provided signals.

There are additional standardizations that could be made to the application process. Currently, interview release dates vary widely among the different specialties and for programs within some specialties. The different interview release dates for the 2025 Match cycle are outlined in TABLE 2. The National Resident Matching Program (NRMP) has laudably mandated a minimum 48-hour offer response period and has barred programs from extending more offers than available interview spots as part of the binding Match Participation Agreement.[9] However, a few additional rules could improve interview scheduling for programs and applicants. For example, neurosurgery's approach is to release interview offers on Fridays in October after 4 PM Eastern Time, which reduces stress for applicants awaiting emails. Programs retain flexibility regarding the Fridays they choose, and the student experience is thus more predictable. If a specialty wanted to continue with one universal offer date, they could choose a Friday in October or early November.

All applicants should be informed of their final interview status by a specific national date across all specialties. For example, OB/GYN uses a final status date of November 27 to inform all applicants of an interview offer, wait list status, or formal rejection. This allows students and advisors to work on potential alternative plans with a standard, sufficient, and predictable amount of lead time. Finally, some

TABLE 2
Current Interview Release Dates for Each Specialty

Specialty	Interviews Released
Anesthesia	Rolling, no specific date
Child neurology	Rolling, no specific date
Dermatology	November 4, November 18, December 2
Emergency medicine	Rolling, but county programs October 19
Family medicine	Rolling, no specific date
Internal medicine	Rolling, no specific date
Internal medicine-pediatrics	Rolling, no specific date
Neurology	Rolling, no specific date
Neurosurgery	Friday afternoons in October
Obstetrics and gynecology	October 29
Ophthalmology	Rolling, with first day October 8
Orthopedics	November 18
Otolaryngology	November 8-12
Pathology	Rolling, no specific date
Pediatrics	Rolling, with first day October 10
Physical medicine and rehabilitation	Rolling, no specific date
Plastic surgery	November 8
Psychiatry	Rolling, no specific date
Radiation oncology	Rolling, no specific date
Radiology	Rolling, no specific date
General surgery	October 26-November 1
Thoracic surgery	Rolling, no specific date
Transitional year	Rolling, no specific date
Urology	October 25
Vascular surgery	Rolling, no specific date

specialties have agreed upon post-interview communication guidelines. Clear guidelines should be widely adopted among specialties to set consistent and transparent expectations for applicants after the interview process. Unfortunately, the current situation leads to substantial stress for applicants in the weeks before rank list submission, as they are subject to a bevy of conflicting advice and general confusion regarding if, when, or how to communicate with their favorite programs.

Much work remains to improve the UME to GME transition. The innovative and iterative piloting of application signaling has provided important lessons that can now be utilized to set new standards.[10] While some residency application problems may require substantial investments of time and resources, an all-specialty, standardized approach to application signaling and uniform processes for interview scheduling are neither complex nor costly. Student affairs deans, applicants, residency programs, and PD organizations should collaborate now on changes for the next match cycle. As there is no umbrella group that can operationalize these suggestions, PDs can advocate for standardization through their associations, the Organization of Program Director Associations, and other national PD organizations. We also urge the NRMP to consider adding stricter standards on the interview offer and acceptance process to the Match Participation Agreement.

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