I. Introduction

The Association of Pulmonary and Critical Care Medicine Program Directors (APCCMPD) consists of program leaders from Critical Care Medicine (CCM), Pulmonary Medicine, and Pulmonary and Critical Care Medicine (PCCM), and represents 96% of ACGME-accredited fellowships in these subspecialties. The APCCMPD’s mission is to foster excellence in training as well as to mentor future educators in pulmonary and critical care medicine. In addition, the APCCMPD provides a communication channel among fellowship programs and with stakeholder organizations. As part of our mission, the APCCMPD takes a vested interest in all aspects of fellowship recruitment. In May 2021, the APCCMPD assembled an Interview Task Force to make recommendations for fellowship interviews. The Interview Task Force was composed of 10 volunteer APCCMPD members, representing training programs in both CCM and PCCM, with diverse geographic distribution, program size, and affiliations (academic vs. community-based). Task force members included Program Directors, Associate Program Directors, a fellow in training, and a program coordinator for broad representation.

II. Background

In May 2020, the Coalition for Physician Accountability, an umbrella group comprised of several national organizations including the Accreditation Council for Graduate Medical Education (ACGME) and the National Residency Matching Program (NRMP), recommended virtual interviews for all 2020-2021 cycle applicants to address COVID-19-related effects on medical education (1). In response, the APCCMPD provided resources and educational offerings to assist CCM and PCCM fellowship program leaders with a transition to a virtual interview season (2). In April 2021, the Coalition for Physician Accountability Undergraduate Medical Education to Graduate Medical Education Review Committee (UGRC) issued preliminary recommendations on the transition from undergraduate to graduate medical education (3). These expansive recommendations include three focused on interviewing: 1) to develop and implement standards for the interview offer and acceptance process, 2) virtual interviews for the 2021-2022 recruitment season with consideration for virtual interviews to be a permanent process, and 3) a centralized process to facilitate specialty-specific limits on the number of interviews each applicant may attend (3). These recommendations are currently in a period of public comment and review. As a community of CCM and PCCM programs, we feel it is critical to have a uniform interview process to ensure equity. The Task Force’s guiding principle was to create trainee-centric recommendations.
III. Process for Developing Recommendations

The Interview Task Force convened over three virtual meetings. During the first meeting, we reviewed existing literature and results of unpublished APCCMPD surveys of program directors and PCCM applicants on virtual interviews. The Task Force also reviewed current statements on virtual interviews from various stakeholder organizations (4-6). After a discussion about the scope of the recommendations, members were each asked to independently review a summary of the existing literature and APCCMPD survey results and to formulate an opinion about the best interview format for programs. During the second meeting, task members were polled on the interview format they would recommend. Each member was asked to discuss their choice and defend their rationale, as well as answer questions from the group. At the end of a comprehensive and robust discussion, a consensus recommendation was reached.

IV. Recommendation for the 2021-2022 Recruitment Season

CCM, Pulmonary, and PCCM fellowship interviews should be held exclusively virtually for all applicants in 2021-2022.

V. Rationale

Task members were polled on the interview format they would recommend: 1) in-person only; 2) virtual only; 3) virtual with optional in-person visit; 4) choice of in person or virtual; or 5) other hybrid models. Initially 40% of the Task Force members chose virtual only and 60% chose virtual with optional in-person visit. While an optional in-person visit initially seemed desirable, further discussion revealed that the optional visit could place applicants under pressure to travel for a visit in order to demonstrate interest in a program. This, in turn, would negate many of the benefits of the virtual interviews, including cost and time savings. Furthermore, despite efforts to mitigate against bias, programs may consciously or unconsciously prefer applicants that attend an in-person interview or optional visit. In the APCCMPD survey, 89% of PCCM applicants voiced concerns that choosing a virtual interview over an in-person interview would result in a lower ranking by programs.

During the final meeting Task Force members were repolled and unanimously recommended exclusively virtual interviews based on the following considerations:

A. Public health perspective

It is unclear what, if any, restrictions will be placed on travel and in-person meetings by government or academic institutions in the fall of 2021. These restrictions may vary from state to state, and institution to institution, and may preclude in-person interviews at certain programs. Further, it is unknown how virus variants will affect the risk of infection with COVID-19 by vaccinated individuals. As such, virtual interviews are the best way to ensure equity and uniformity and to protect applicants.

B. Applicant perspective

1. Cost

In-person fellowship interviews require substantial financial and time resources from applicants. The mean/median costs of residency and fellowship interviews in surgical programs was $4,000-7,180, with some trainees reporting spending up to $25,000 (7). Traveling across the country to attend multiple interviews takes away from both
the applicant’s training and vacation time, and may contribute to burnout. Virtual interviews enable all applicants to participate in interviews without financial implications. In the APCCMPD survey of PCCM applicants, 85% listed travel cost and travel time as factors that would lead them to choose virtual interviews over in-person interviews.

2. Equity

Due to the costs above, in-person interviews favor applicants who have the financial means to travel and take time away from training or jobs. Virtual interviews level the playing field for applicants from a variety of socioeconomic backgrounds.

C. Program perspective

1. Advantages of virtual interviews for programs

Virtual interviews will likely result in significant financial savings for programs (e.g., food, local transportation costs, and staff time to escort applicants), and minimize the environmental impact of travel for interviews (8). Faculty will save time by not having to travel to a central location for interviews on multiple days, increasing the pool of faculty interviewers. Virtual interviews will allow applicants from geographically distant locations to consider a program they otherwise may not have considered due to the travel time required to visit in-person. Finally, Task Force members discussed the uncertainty regarding the duration of the COVID-19 pandemic and the long-term efficacy of the COVID-19 vaccine, favoring continued virtual interviews.

2. Potential program concerns with virtual interviews

One potential challenge for programs conducting exclusively virtual interviews is managing a greater number of applications. The number of applications by applicant for PCCM fellowship has been steadily increasing; this rate of rise does not seem to have been impacted by the virtual interview season in 2020-2021 (9). Candidates may apply to a greater number of programs and conduct more interviews with virtual interviews, as there is less financial and time cost for accepting interview. Half of APCCMPD program director respondents noted fewer interview cancellations with virtual interviews in 2020-2021.

3. Conformity with other organizations

Several other groups have already recommended exclusively virtual interviews for the 2021-2022 cycle including The Council on Resident Education in Obstetrics and Gynecology (American College of Gynecology, 4), pediatric residency and fellowship program leaders (5,6), and the Infectious Diseases Society of America (IDSA, email communication of May 10, 2021). In addition, the preliminary recommendations of the Undergraduate Medical Education to Graduate Medical Education Review Committee (UGRC) include a recommendation for virtual interviews for the 2021-2022 recruitment season (3) and the Alliance for Academic Internal Medicine feedback recommends virtual interviews for 2021-2022 as the most equitable approach (10).
V. APCCMPD Interview Task Force recommendations for virtual interviews

In a survey conducted by APCCMPD, applicants reported that they were not able to evaluate certain program factors as well in virtual interviews compared to in-person interviews. The top areas of concern included: facilities, culture, location, faculty-fellow relationships, and fit. These limitations do not negate the net positive benefits of virtual interviews but do require programs to create the best process possible for virtual interviews. Programs should implement evidence-based strategies to mitigate the concerns that applicants have around virtual interviews including 1) developing a detailed process for interviews, 2) using standardized interview questions to minimize bias, 3) recognizing and responding to biases amplified by the virtual interview format, 4) preparation for current trainees by medical schools and residency programs, 5) developing electronic materials and virtual social events, and 6) collecting data about virtual interviews (11).

In addition, the Task Force recommends the following practices based on comments from the APCCMPD applicant survey:

Scheduling
- Only extend an interview invitation to an applicant if an interview position is truly available and consider that there may be fewer interview cancellations with a virtual format.
- Programs may create a waitlist of applicants in case of cancellations, though it should be clearly communicated that this is a wait-list invitation.
- When possible, schedule all interviews for a given applicant on one day, rather than over several days.

Overcoming technical difficulties
- Train program leaders in the use of the virtual interview platform.
- Provide clear instructions to applicants in the use of the virtual platform
- Include a phone number to call for technical support – this will lower applicant stress in case of technical challenges

Meeting with current fellows
To address concerns about cultural fit and fellow satisfaction, provide opportunities for applicants to virtually interact with current fellows in a group setting with other applicants (not attended by faculty), and one-on-one sessions with current fellows.

Location and facilities
Develop video introductions to the program, institution, and city for applicants to review ahead of the interview visit with the goal of recreating important aspects of the in-person interview day.

Uniform treatment of all applicants
- All applicants, including internal candidates, should be interviewed virtually.
- To ensure equity, programs should not meet in-person with candidates who choose to travel to the program’s location.

VI. Perspective beyond the pandemic

Most of the factors favoring virtual interviews are applicable well beyond the pandemic, particularly concerns about cost and equity. Therefore, strong consideration should be given to permanently conducting virtual interviews. The Task Force discussed the
possibility of conducting hybrid (virtual/in-person) interviews in future years if the rank order list deadline for programs and candidates were separated. This would enable candidates to visit programs without influencing the programs’ decision about their candidacy. After discussion, Task Force members raised concerns about increased workload for fellowship programs and continued cost and equity concerns for applicants.

Finally, continued virtual interviews should prompt consideration of other revisions to the interview process, including possible limits to the number of applications and/or interviews per candidate. Such limits would allow for broader application of holistic review and ensure equitable interview access for all candidates.

References

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