

Are Critical Care Fellowship Programs Addressing the ICU Physician Shortage?

Neal F. Chaisson, M.D.

Respiratory Institute, Cleveland Clinic, Cleveland, Ohio

ORCID ID: 0000-0001-8207-0966 (N.F.C.)

Our experience navigating the coronavirus disease (COVID-19) pandemic highlighted the growing threats associated with a shortage of critical care (CC) physicians in the United States and around the world. Before March 2020, when the World Health Organization officially declared COVID-19 a pandemic, 48% of hospitals surveyed by the American Hospital Association reported shortages in CC provider staffing (1). This number has grown during the pandemic, owing to increased rates of burnout, early retirement, and illness (2).

The U.S. healthcare system relies heavily on subspecialty fellowship training programs to address these gaps. Critical Care, as a subspecialty, is unique in that training and board certification can be pursued through multiple pathways. Within these pathways, many physicians combine their CC training with another specialty or subspecialty (anesthesia, surgery, pulmonology, nephrology, etc.), potentially diluting the time they dedicate to intensive care unit (ICU) patient care. Surveys showing this phenomenon have

led some experts to advocate for the expansion of stand-alone CC fellowship training as a means to increase full-time intensivist staffing (3, 4). Unfortunately, there are few data regarding how and where physicians from stand-alone CC fellowships actually practice after graduation. In this issue of *ATS Scholar*, Pastores and colleagues begin to unpack the question of where and how graduates of a stand-alone CC fellowship practice after fellowship graduation (5). The authors surveyed 133 physicians who graduated from an internal medicine-based CC fellowship training program between 2000 and 2020. The results offer a glimpse into several key issues, including how much time graduates spent performing CC services, what type of hospital setting they were employed in, and whether they were involved with ancillary aspects of CC, such as research, administration, or education.

The authors report that every graduate who completed a survey reported clinical involvement in CC in some capacity after graduation. More importantly, 80% of respondents said they spend >50% of

This article is open access and distributed under the terms of the Creative Commons Attribution Non-Commercial No Derivatives License 4.0. For commercial usage and reprints, please e-mail Diane Gern.

ATS Scholar Vol 4, Iss 1, pp 1–3, 2023
Copyright © 2023 by the American Thoracic Society
DOI: 10.34197/ats-scholar.2022-0133ED

their clinical time in the ICU. This finding contrasts with prior data showing that physicians with combined pulmonary and CC training only spent a quarter of their time in the ICU setting (3). The importance of this contrast cannot be overstated. As previously noted, survey data have been used to guide policy and training guidance, including controversial recommendations around future CC training and ICU staffing models (1, 6). The fact that graduates in the current study who received non-CC training before their CC fellowship (1-year CC fellows) still allocated an average of 62% of their time to CC patient care should allay our fears that those who receive subspecialty training in addition to CC are not adequately contributing to the CC staffing conundrum.

Pastores and colleagues also describe the type of hospitals where graduating physicians practiced as well as the nonclinical activities they were involved with. Most respondents reported working for hospital-based employers in community teaching or university-affiliated hospitals after graduation. The majority rounded in more than one ICU, and about a third held administrative roles. Although these data are informative at the local level, the challenge with interpreting these results from the viewpoint of the larger CC community lies in its potential lack of external validity. The survey was conducted among graduates from a large, urban, academic specialty hospital in New York City. Admittedly, graduates did mirror some demographic norms for CC medicine across the United States, including sex and race. But several other factors differed from those norms. For example, a disproportionate number of those surveyed (80%) were international medical graduates, a third of whom trained under H1-B

or J-1 visa status. Visa holders, as the authors acknowledge, often carry significant restrictions with respect to physician employment after graduation. It is also important to remember that every program possesses a unique cultural and curricular focus. This “hidden curriculum” within a program frequently impacts job selection, for better or worse, much in the same way that it might influence medical students choosing a residency (7).

Needless to say, extrapolating the perspective of a single program to describe how and where CC physicians practice in the United States is problematic. At best, it fails to answer the fundamental question at hand because it does not represent the specialty as a whole. At worst, it provides a false cover (whether intentional or not) for experts who are tasked with providing guidance toward future CC training, staffing, and infrastructure. Acknowledging the limitations of this study presents an opportunity to highlight why it is important for professional societies and accrediting bodies to assume primary responsibility for answering these types of questions. These groups have access to the broader CC community, enabling them to ensure a diverse sample from which to draw conclusions. We should acknowledge the efforts that have already been made to do this by organizations such as the American Medical Association, the American Board of Medical Specialties, and the American Association of Medical Colleges (3, 8–10). These groups have certainly provided us with important data in the past, but because they represent multiple specialties, the data gathered often lack the granularity necessary to fully understand questions related to the CC physician shortage. In this case, professional organizations such as the Critical Care Societies Collaborative or

the Association of Pulmonary and Critical Care Program Directors may be better suited to address the questions at hand. These groups have every reason to expect success, given informed memberships, broad access to the CC community, and committed leadership.

The recent COVID-19 pandemic showed us why we need a clearer understanding of how CC-only training programs are impacting the CC physician

gap. This study is a good starting point. With leadership, coordination, and broad participation, a fuller perspective is achievable. The benefit of such an effort is knowing that training programs, societies, accrediting bodies, and legislatures will have accurate data to inform forward thinking.

Author disclosures are available with the text of this article at www.atsjournals.org.

REFERENCES

1. Halpern NA, Pastores SM, Oropello JM, Kvetan V. Critical care medicine in the United States: addressing the intensivist shortage and image of the specialty. *Crit Care Med* 2013;41:2754–2761.
2. Jatoi NN, Awan S, Abbasi M, Marufi MM, Ahmed M, Memon SF, *et al*. Intensivist and COVID-19 in the United States of America: a narrative review of clinical roles, current workforce, and future direction. *Pan Afr Med J* 2022;41:210.
3. Angus DC, Kelley MA, Schmitz RJ, White A, Popovich J Jr; Committee on Manpower for Pulmonary and Critical Care Societies (COMPACCS). Caring for the critically ill patient. Current and projected workforce requirements for care of the critically ill and patients with pulmonary disease: can we meet the requirements of an aging population? *JAMA* 2000;284:2762–2770.
4. Halpern NA, Tan KS, DeWitt M, Pastores SM. Intensivists in U.S. acute care hospitals. *Crit Care Med* 2019;47:517–525.
5. Pastores SM, Kostecky N, Halpern NA. Graduates of a multidisciplinary critical care training program from 2000 to 2020: looking at their first job. *ATS Scholar* 2023;4:39–47.
6. Cohen NH, Patterson AJ, Coursin DB. Time to break down silos: alternative approaches to staffing ICUs. *Crit Care Med* 2014;42:e535–e536.
7. Mahood SC. Medical education: beware the hidden curriculum. *Can Fam Physician* 2011;57:983–985.
8. American Board of Medical Specialties. ABMS Board Certification Report. [accessed 2022 Nov 29]. Available from: <https://www.abms.org/abms-board-certification-report/>.
9. Association of American Medical Colleges. Active physicians by sex and specialty. 2019 [accessed 2022 Nov 29]. Available from: <https://www.aamc.org/data-reports/workforce/interactive-data/active-physicians-sex-and-specialty-2019>.
10. Smart DR. Physician characteristics and distribution in the US 2015. Chicago, IL: American Medical Association; 2015.