

Exchanging Dermatoscopes for Stethoscopes: Has the COVID-19 Pandemic Highlighted Gaps in US Dermatology Residency Training?

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To the Editor: We read with great interest the recent manuscript from Murphy et al exploring dermatologists' preparedness to address cutaneous sequelae of natural and manmade disasters.¹ We applaud the authors on highlighting gaps in dermatology training with regards to disaster training, and in light of recent global events, we were inspired to characterize the preparedness of dermatologists for something seemingly more banal: namely, a return to internal medicine wards.

Prior to the COVID-19 pandemic, no public health crisis in recent history – including the AIDS pandemic – has demanded the redeployment of physicians from all practice settings to assist with inpatient care. Indeed, the likelihood of dermatologists being redeployed to COVID-19 wards seemed exceedingly unlikely until the initial wave of redeployed internists was insufficient to address the onslaught of sick patients.² Suddenly, dermatologists found themselves being asked to draw from knowledge learned during medical internship to assist on the frontlines.³ As residents (including the two co-first authors, Dr. K. Shaw and Dr. T. Karagounis) were being deployed to assist with COVID-19 efforts, we saw a unique opportunity to sample dermatology trainees' views on their preparedness to serve in expanded patient care capacities.

In April 2020, we distributed a web-based survey to current US dermatology trainees and included questions regarding previous training and perceived preparedness for redeployment to the emergency department (ED), inpatient wards, and intensive care unit (ICU). 90 unique responses were returned. Despite the overall low response rate, responses from current trainees in the Northeastern US were enriched (21% response rate), corresponding to the early epicenter of the COVID-19 pandemic in the United States. Ordinal logistic regression was performed to examine possible associations between preparedness (scored on a 1–5 scale) and independent variables.

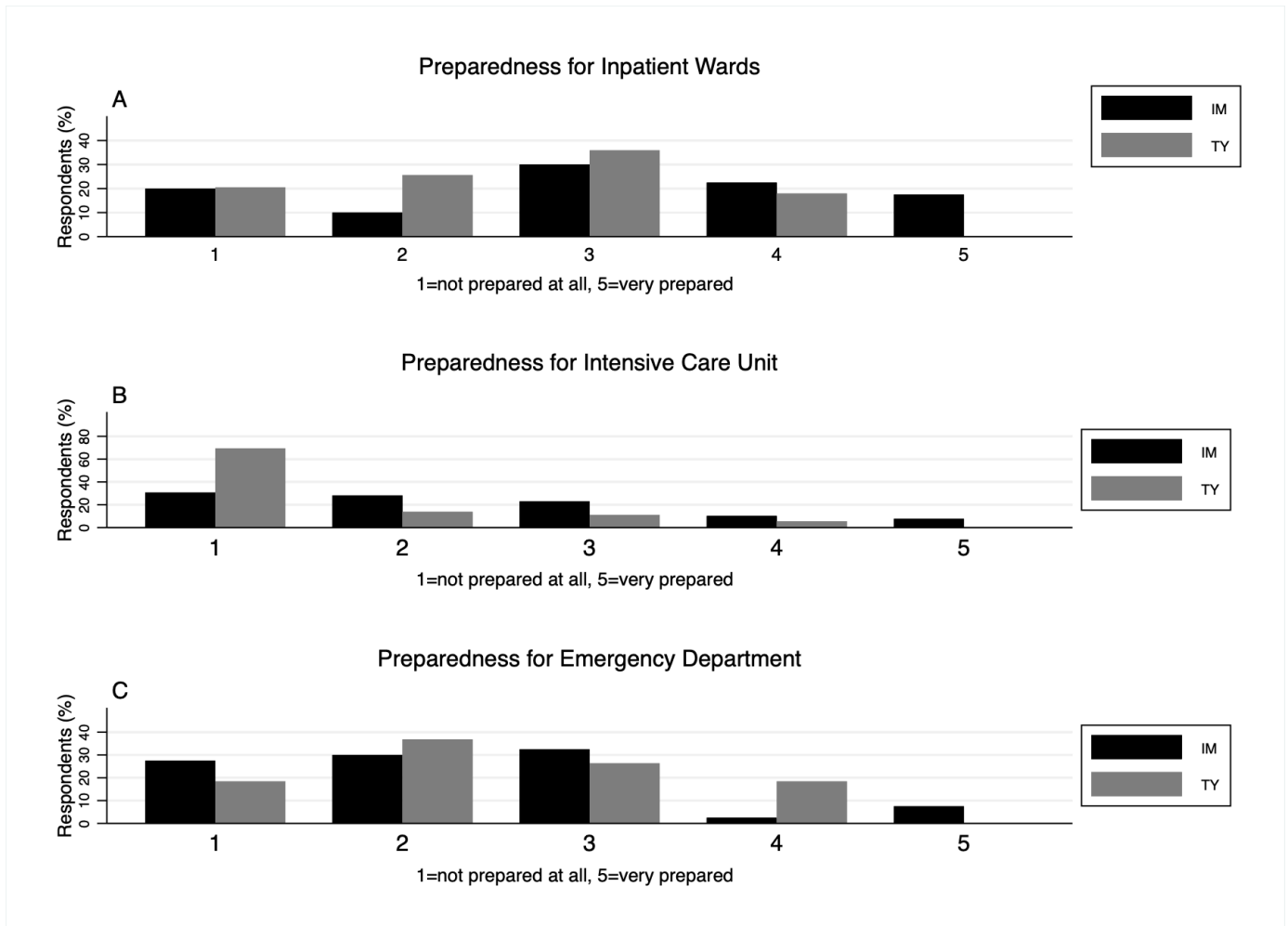
32.2% of respondents reported redeployment due to the COVID-19 pandemic, with the majority (76.0%) serving on inpatient

wards. More than half (51.9%) had volunteered. Most respondents completed an internal medicine (IM) preliminary year (44.4%) or transitional year (TY) (43.3%) prior to the start of dermatology residency.

Notably, a statistically significant association was observed between internship type and preparedness for deployment to inpatient wards ($P=0.04$, OR 2.29 95%CI [1.02, 5.16]) and the ICU ($P<0.001$, OR 4.57 95%CI [1.82, 11.47]); association with ED preparedness was not significant (Figure 1). Specifically, dermatology residents who completed an internal medicine (IM) internship scored higher on a self-reported preparedness scale to serve in inpatient and ICU settings compared to those who completed TYs. As expected, perceived preparedness for redeployment was inversely associated with number of years post-internship with first-year dermatology residents self-assessing as more prepared for inpatient medicine compared to their more senior counterparts ($P=0.02$, OR 0.58 95%CI [0.36, 0.92]).

As dermatologists, we identify as subspecialists and consultants. In order to command the sheer breadth of cutaneous pathology, most US dermatologists defer the broader scope of medical management to internists. However, obtaining a strong foundation in clinical medicine remains paramount, both to provide comprehensive care to medically complex dermatology patients and to assist in unprecedented, albeit infrequent, public health crises like the COVID-19 pandemic. In the United States, that foundation is primarily obtained prior to dermatology residency, when trainees complete at least a one-year medical internship. However, over the years, eligible programs have become increasingly variable and include first-year residencies in one of several specialties including internal medicine, pediatrics, family medicine or emergency medicine as well as so-called "transitional years." TYs, also known as "flexible post-graduate years," typically include a less rigorous combination of internal medicine, surgical and elective rotations.⁴

FIGURE 1. Perceived preparedness of dermatology residents to serve in inpatient medicine (A), intensive care unit (B) and emergency department (C) settings based on internship type. IM, internal medicine preliminary year; TY, transitional year.



While our low response rate limits the generalizability of our data, it is important to note that those US dermatology residents who completed less rigorous internships felt less prepared to assume inpatient medicine responsibilities compared to their counterparts who performed more robust IM years. As we dermatologists take stock in the aftermath of the first wave of the COVID-19 pandemic and prepare for future surges, a careful review of dermatology resident training is warranted. Certainly, the practice of foregoing more robust internal medicine training in favor of less rigorous internship experiences should be questioned. While additional studies are needed to better interrogate dermatology resident education, emphasizing the importance of strong foundations in clinical medicine will no doubt serve our discipline well going forward.

DISCLOSURES

The authors have no conflict of interest to declare.

References

1. Murphy EC, Alptunaer T, Noll S, et al. A survey of dermatologists' preparedness for natural and manmade disaster. *J Drugs Dermatol.* 2020;19(2):195-197.
2. Sengupta S. With virus surge, dermatologists and orthopedists are drafted for the E.R. The New York Times. 2020 April 3. Available from: <https://www.nytimes.com/2020/04/03/nyregion/new-york-coronavirus-doctors.html>
3. Stoj V, Grant-Kels J. Dermatology residents and the care of patients with coronavirus disease 2019 (COVID-19). *J Am Acad Dermatol.* 2020 Apr 4;S0190-9622(20)30509-0.
4. Baker SR, Tilak GS, Thakur U. Critique of the transitional year internship and its relationship to radiology residency. *Acad Radiol.* 2008;15(5):662-8.

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