



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Optimizing teledermatology visits for dermatology resident education during the COVID-19 pandemic



To the Editor: After an outbreak of unexplained pneumonia cases in Wuhan, China, in December 2019, the World Health Organization officially named the disease caused by the culprit virus as coronavirus disease 2019 (COVID-19).¹ Faced with a global public health emergency, dermatology practices are now using telemedicine to limit in-person appointments to reduce transmission of COVID-19 per interim guidance from the Centers for Disease Control and Prevention and the American Academy of Dermatology.² A recent Letter to the Editor likewise recommends minimizing trainee exposure to maintain a potential pool of residents to supplement the growing need for hospital staff.³

Although some dermatology residents will eventually be deployed to treat patients with COVID-19 in overloaded hospital systems, most dermatology residents are currently working in dermatology clinics impacted by this pandemic. The Accreditation Council for Graduate Medical Education's clinical and educational expectations are such that "significant changes in resident/fellow education of more than 4 weeks in duration must be reported to the Executive Director of the applicable Review Committee."⁴ Training disruptions caused by the implementation of telemedicine and altered clinic workflow may affect resident board eligibility and compromise dermatology resident education. Preservation of resident education during this pandemic is essential.

Epic (Epic Systems Verona, WI), an electronic medical record software application, is used at our institution as well as many other academic centers. The Epic Haiku application can be used on smartphones to perform virtual video visits, which will allow many institutions to transition to teledermatology. Epic Haiku features a "multi-provider" video visit option whereby multiple providers can simultaneously interface with the patient from distinct and remote locations. There are several ways that residents can be incorporated into these video visits. So far, we have found the most educational and efficient way is as follows:

1. The resident and attending both login to Haiku.
2. The resident leads the history and physical assessment with the patient.
3. The resident briefly discusses the assessment and plan with the attending with the patient still present on the call, depending on patient comfort.
4. The attending then confirms the plan and makes necessary changes.

So far, we have found patients to be very accepting of this approach. Alternative models could be adapted depending on clinic schedule, patient complexity, and patient comfort.

Teledermatology is likely going to become a longstanding method of the future practice of dermatology, and the Accreditation Council for Graduate Medical Education now permits residents to use telemedicine under supervision to care for patients.⁵ Institutions should immediately start implementing workflows that incorporate residents to both avoid disruption in resident education and allow for trouble shooting while patient volume is low. Resident education should not be sidelined during the COVID-19 pandemic.

Reid Oldenburg, MD, PhD, and Amanda Marsch, MD

From the Department of Dermatology, University of California, San Diego, San Diego, California.

Funding sources: None.

Conflicts of interest: None disclosed.

IRB approval status: Not applicable.

Reprints not available from the authors.

Correspondence to: Amanda Marsch, MD, PhD, University Pacific Center, 8899 University Center, Ste 350, San Diego, CA 92122

E-mail: amarsch@health.ucsd.edu

REFERENCES

1. Sun P, Lu X, Xu C, Sun W, Pan B. Understanding of COVID-19 based on current evidence. *J Med Virol*. 2020. <https://doi.org/10.1002/jmv.25722>.
2. American Academy of Dermatology Association. Managing your practice through the COVID-19 outbreak. Available at: <https://www.aad.org/member/practice/managing/coronavirus>. Accessed March 30, 2020.
3. Kwatra SG, Sweren RJ, Grossberg AL. Dermatology practices as vectors for COVID-19 transmission: a call for immediate cessation of non-emergent dermatology visits. *J Am Acad Dermatol*. 2020;82(5):e179-e180.
4. Accreditation Council for Graduate Medical Education. ACGME Resident/Fellow Education and Training Considerations related to Coronavirus (COVID-19). Available at: <https://acgme.org/Newsroom/Newsroom-Details/ArticleID/10085/ACGME-Resident-Fellow-Education-and-Training-Considerations-related-to-Coronavirus-COVID-19>. Accessed March 30, 2020.
5. Accreditation Council for Graduate Medical Education. ACGME Response to the Coronavirus (COVID-19). March 18, 2020. Available at: <https://www.acgme.org/Newsroom/Newsroom-Details/ArticleID/10111/ACGME-Response-to-the-Coronavirus-COVID-19>. Accessed March 30, 2020.

<https://doi.org/10.1016/j.jaad.2020.03.097>