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## Correspondence

## Medical education in movement disorders during the COVID-19 pandemic



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The coronavirus disease 2019 (COVID-19) has presented widespread challenges for physicians and fundamentally altered how patient care and research are conducted. Importantly, COVID-19 has also significantly impacted the medical education of trainees [1,2]. We discuss the application of available technology to continue medical education of trainees in movement disorders, as well as educating trainees in how to deliver exceptional patient care using this technology.

Implementation of social distancing has changed the environment in which didactic and clinical learning occurs [1,2]. Typically, in-person didactic experiences allow for relationship building amongst trainees and faculty, while physical patient contact during clinical work facilitates learning the movement disorders examination [1]. The move to a remote environment may limit these interactive experiences. As a result, many have expressed concern over the impact of COVID-19 on the quality of trainee education during this unique era [1,2]. Technology can help address these concerns and continue to facilitate quality movement disorder education.

The use of video platforms for learning conferences has been implemented by multiple institutions during the COVID-19 pandemic to facilitate trainee education [3]. We have successfully applied this at our institution to promote fellow education by broadcasting movement disorder video rounds and educational lectures on video platform. This has also enhanced the multidisciplinary experience of these meetings by facilitating attendance from physicians in other divisions who would not be able to attend otherwise. Long-term studies regarding the effectiveness of this format for trainee learning are needed, but we suggest that video platforms can be used effectively in this current educational climate.

Although a telemedicine curriculum was previously developed for delivery of neurologic care, this has not been part of standard medical education [4]. These skills are now essential given restrictions due to COVID-19 [2]. Faculty must educate trainees in delivery of patient care through telemedicine and consider ways to provide bedside education in a remote environment. There is sparse literature, however, specifically evaluating telemedicine education for trainees. Our center previously implemented a telemedicine curriculum for neurology residents rotating in the movement disorders clinic [5]. This curriculum was shown to be effective in increasing comfort level and competency of trainees in providing care over video [5]. We have broadened the use of this protocol during COVID-19 to provide this education to trainees who are now caring for patients with movement disorders remotely. We are hopeful that other training programs can implement similar

telemedicine curricula to promote delivery of effective care through this format.

There is uncertainty surrounding how COVID-19 will continue to impact the practice of movement disorders moving forward. While we hope in-person clinical care returns as a safer option in the near future, telemedicine likely will continue to have a greater role moving forward, both to prevent spread of COVID-19 and reach areas with little to no access to tertiary care. Despite this uncertainty, we must continue to emphasize trainee education and are equipped with the tools to do so. As our techniques for clinical care and research have changed, our didactic and bedside teaching must also adapt to this remote environment to teach trainees the skills necessary to provide tertiary level care in any environment.

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## Declaration of competing interest

Drs. Zuzuárregui, Bledsoe, Brown, Dietiker, and Galifianakis report no conflicts of interest.

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José Rafael P. Zuzuárregui\*, Ian O. Bledsoe, Ethan G. Brown,  
Cameron G. Dietiker, Nicholas B. Galifianakis  
*Department of Neurology, University of California, San Francisco, United*

*States*

*E-mail address:* [rafael.zuazarregui@ucsf.edu](mailto:rafael.zuazarregui@ucsf.edu) (J.R.P. Zuzuárregui).

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\* Corresponding author. 1635 Divisadero Street, Suites 520-530, San Francisco, CA, 94143, United States.