

**LETTER TO THE EDITOR****Hospital-based dental externship during COVID-19 pandemic:  
Think virtual!**

Dear Editor,

Coronavirus disease 19 (COVID-19) is a condition caused by the novel pathogen severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).<sup>1</sup> Originating from bats, the virus is thought to have been initially transmitted from animal to person in Wuhan, Hubei Province, China, followed by person-to-person transmission that has subsequently spread throughout the world.<sup>1</sup> On March 11, 2020, the World Health Organization characterized the COVID-19 outbreak as a pandemic, the first kind which has been attributed to a new coronavirus.<sup>1</sup> Currently, there is no vaccine against SARS-CoV-2, and there are no medications used with definitive success in treating the disease.<sup>2</sup> Management consists mainly of supportive therapy and treating the symptoms in attempts to prevent respiratory failure.<sup>2</sup>

The COVID-19 pandemic has had a major impact on dental education. In the United States, most dental schools have ceased clinical activities, except for dental emergencies, and didactic classes have been converted to remote learning through a variety of technological platforms.<sup>3</sup> Faculty and students adapted to a completely virtual dental curriculum, which will likely be in place for the foreseeable future.<sup>4</sup> Similar to other dental schools, student graduation requirements at Penn Dental Medicine (PDM) were still pending completion at the time of the pandemic. At PDM, this included participation in a hospital-based dental externship and completion of an online hospital-based Objective Simulated Clinical Examination (OSCE) in this area. PDM offers students a variety of externship opportunities in hospital dentistry at several health care facilities, however, participation in an externship outside of the home institution was not feasible due to the pandemic. Therefore, it was determined that those students ( $n = 3$ ) who had not completed this requirement at the time of the pandemic would be offered an oral medicine externship at Penn Medicine and subsequently challenge the hospital-based OSCE. The conundrum now was how to afford this clinical experience under a stay at home order during the current pandemic.<sup>5</sup>

A virtual, hospital-based oral medicine externship was created using video and social media-based technology for

students ( $n = 3$ ) required to complete this requirement prior to graduation. The first part of the experience consisted of a PowerPoint presentation created by the Externship Director (ES), Director of Postdoctoral Oral Medicine (TT) and Department Chair (TS) to provide detailed information regarding: (a) the physical hospital and outpatient oral medicine clinic environment, (b) the clinical care team, (c) nature of outpatient oral medicine clinical services provided, (d) types of medical providers who refer patients for oral medicine clinical services, and (e) specific examples of common inpatient consultations performed by the oral medicine service. The presentation was recorded with voice narrative by the Externship Director using a video platform and was compulsory viewing prior to advancing to the second part of the experience, which consisted of an interactive conference between the student and Externship Director using a social media platform. The purpose of this was to (a) allow the Externship Director an opportunity to assess the student's general comprehension of fundamental concepts and (b) afford the student an opportunity to independently demonstrate knowledge regarding evaluation and management of common inpatient oral medicine clinical cases. After completion of the virtual experience, each student successfully completed the online hospital-based OSCE to confirm attainment of knowledge, skill, and value in this area.

The COVID-19 pandemic forced health education professionals to completely rethink models of education delivery. Traditional in-person learning modalities in the classrooms and clinics were not feasible due to social distancing measures mandated by federal, state, and local governments in the United States to mitigate the spread of SARS-CoV-2. Since self-directed learning opportunities in health professions education using Internet-based media are now commonplace,<sup>6</sup> we decided to capitalize on this technology to ensure the requirement of participating in a hospital-based dental externship was met. We learned this method of delivering an externship is effective in the absence of being physically present in the clinical environment, as evidenced by successful student completion of the OSCE and positive verbal feedback from both students and Externship Director. We also learned this may


be an opportunity for students in other dental schools, as well as other health care professions, to meet educational requirements and gain appreciation for clinical oral medicine if their institutions do not afford them similar opportunities. This will allow current students in a variety of health care professions to potentially advance and optimize clinical outcomes for their future patients, as they will become modern-day clinicians dedicated to comprehensive and interprofessional health care.

### CONFLICT OF INTEREST

Personal fees from University of Pennsylvania and American Academy of Oral Medicine outside the submitted work: Eric T. Stoopler. Personal fees from University of Pennsylvania: Takako I. Tanaka. Personal fees from University of Pennsylvania: Thomas P. Sollecito. Ethical approval was not received because this is an editorial. The authors confirm that the content of this submission has not been published or submitted for publication elsewhere.

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