Innovations: Innovating Together While Social Distancing

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The coronavirus disease 2019 (COVID-19) pandemic has changed almost every aspect of our professional and personal lives. Now, more than ever, innovative use of technology is key to continued collaboration in our cytopathology community. Digital pathology tools have come to the forefront for both patient care and teaching purposes. Cytologists often serve in the front lines of diagnoses by rendering immediate assessments for procedures and performing fine-needle aspiration. Thus, our field, laboratory staff, and cytologists have unique challenges in this pandemic, challenges that can be tackled through innovative solutions and coming together to solve problems as a community.

Social Media Networks

Online social networks have provided information and misinformation about COVID-19 for both professionals and nonprofessional folk. The primary topic of conversation in just about every physician Facebook group has been COVID-19. Pathology-related questions pertaining to testing, histologic findings, and protecting our medical staff have been key topics of discussions. For cytologists around the globe, social media networks have been critical for sharing knowledge and practice patterns.

Twitter chats are an easy way to engage in a real-time discussion of timely topics. Past *Cancer Cytopathology* #CytoChats have covered topics such as molecular testing and thyroid cytology, ancillary studies in cytology, and noninvasive follicular thyroid neoplasms with papillary-like nuclear features (NIFTP). A recent #CytoChat was on the topic of COVID-19 in the cytology laboratory, and it spurred a robust discussion. Authors of recent articles describing their international perspectives regarding COVID-19 biosafety specimen preparation[1,2] served as panelists. Participants joined from around the world and shared their experiences and solutions to common problems, with more than 600 tweets on the topic (Fig. 1).

For those who are unfamiliar with Twitter or Twitter chats, it is easy to participate in these discussions. Although you can read the discussion thread without joining Twitter, you will not be able to contribute your own comments without a Twitter account. There are many other reasons to join Twitter as well, including networking, education, and research[3]:

- Follow @CancerCytopath on Twitter: https://twitter.com/CancerCytopath.
- To participate in the #CytoChat, log on to Twitter at the time of the chat, and search for the #CytoChat hashtag to join the conversation. Searching for this hashtag will bring up a list of all the tweets in the conversation.
- Post your own comments with #CytoChat at the end to be included in the chat.
- The easiest way to participate, see all #CytoPath posts, and automatically include the hashtag in your own posts is to use tchat.io. The discussion

does not need to stop at the end of the hour: you can continue chatting with the #CytoChat hashtag to continue the conversation. The tweets from the chat can be viewed later as well.

Education

With the reduction of in-person educational activities, motivated individuals in the Twittersphere have instituted virtual projects to help to fill the gaps in medical education; these projects range from high-quality webinar series[4-6] to virtual grand rounds,[7] virtual pathology electives at the Massachusetts General Hospital[8] and online,[9] and a new pathology podcast.[10] In addition to these virtual pathology education and recruitment efforts, Health Insurance Portability and Accountability Act–compliant videoconferencing tools are invaluable for maintaining cytopathology education while limiting exposures (as Madrigal[11] and Kwon et al[12] have written).

Telecytology

Whole slide imaging in cytopathology is still limited by challenges, including the large file size required for adequate resolution, the 3-dimensional nature of cytology samples, and issues related to workflow.[13] A heightened imperative to minimize exposures has led to increased interest in and need for telecytology. A recent systematic review found that studies showed good concordance between cytologic whole slide imaging and the original diagnosis based on glass slides, but the time to reach a diagnosis was longer with whole slide imaging in all studies.[14] Although in-person consultation during rapid onsite evaluation may be somewhat faster and offer additional benefits over telecytology (as described by Gutmann[15]), these considerations may take a backseat to infection control discussions in the current situation. There are many tools available for telecytology, including low-cost options. Videoconferencing software, which has become a ubiquitous feature of our professional and even social lives, can be used for telecytology applications as well.[16,17]

It is uncertain what the future holds and how our interpersonal, professional, and educational interactions will be altered in the

FIGURE 1. April 2020 #CytoChat on the topic of COVID-19: (A) cover image with chat information and (B) Symplur statistics from the #CytoChat showing more than 600 tweets. COVID-19 indicates coronavirus disease 2019.

future. Although the challenges are great, the opportunities are great as well. We live in a time of rapid technological advancement, much of which has already begun to be harnessed to solve problems created by the pandemic. Thanks in large part to technology, our global cytopathology community is more connected than ever before. This connectedness will keep us innovating through these challenging times and moving the field forward together.

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