

## Apple Watch breaking barriers for students with disabilities

By Clay Littrell, M.A.

Students with autoimmune diseases may face additional barriers in the clinical setting. Their symptoms can be intermittent and could include chronic fatigue, arthritic joint pain, and swelling in their extremities. A number of high- and low-tech solutions can address one of the largest complaints for students — *pain in the hands* — impacting their ability to type and to grip the equipment needed to perform in clinic or on the wards.

Adaptations can be made for these students that are low-tech, like modifying a ball to act as a grip for a stethoscope, or the use of large, moldable grips that can be used with hammers, or the adaptations can be high-tech, like the use of Cellscope® to alleviate the need for a tight otoscope grip. As mentioned above, one of the chief complaints for students with autoimmune diseases is the swelling of joints that causes pain when typing. This makes writing patient-encounter notes difficult, especially when the pain is exacerbated by acute fatigue.

Although speech-recognition software is helpful in these instances, having a space for dictation and securing a device (e.g., laptop or tablet) at all clinical sites is a challenge.

In addition, students express concern around clinical performance reviews and the potential optics when they consistently use a device such as an iPhone to dictate notes — regardless of accommodation.

The solution that has garnered the most praise and promise is the use of an Apple Watch (version 2 in this case) to complete patient notes.

In an effort to minimize steps, we created an Apple Watch workflow that utilizes Microsoft's OneNote Apple Watch extension app, which allows the user to create a new text note with two taps of the watch, or hands-free by using the "Hey Siri" function.

The user can dictate and see the text appear on the watch screen. The "note" is then saved in real

time, and the wearer can create as many notes as needed without having to pull out an iPhone.

Once at the electronic health record station, the student simply opens the OneNote app on her phone once to sync her watch with the cloud; notes are then synced across all OneNote logins, making them available for cut/paste into the health record system. And the Apple Watch version 3 can now be used standalone, in the complete absence of an iPhone.

While potential complications exist, like interference from ambient noise inherent in hospital or office settings that may impair the accuracy of speech recognition and dictation, there are also excellent solutions.

Using Air Pods, Apple's Bluetooth earbuds, reduces the complications, and they double as excellent noise-canceling Bluetooth microphones. These earbuds can be used on both or either side, can be activated by touch or tap controls, and are clinic-friendly, in that the user continues to hear and be alert to her surroundings. Air Pods are also less noticeable than other Bluetooth headsets and can work with any Apple device.

The University of California, San Francisco, is currently beta testing the Apple Watch on the wards and looking for other uses and implementations using this technology. To date, the Apple Watch has proven to be an effective, elegant accommodation that will continue to mitigate barriers into residency and practice. ■

### About the author

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### About this column

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