

How COVID-19 Rapidly Transformed Clinical Practice at the Harold Schnitzer Diabetes Health Center Now and for the Future

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Similar to other institutions, the SARS-CoV-2 pandemic dramatically changed our practice at the Harold Schnitzer Diabetes Health Center (HSDHC) at Oregon Health & Science University (OHSU). On March 7, 2020, the first positive COVID-19 result returned for a patient at OHSU. The earlier experiences in Washington and California prompted our institution and the entire state of Oregon to employ immediate and comprehensive preventive measures. HSDHC acted promptly to reduce face-to-face encounters for the safety of our patients and staff and to reduce institutional use of personal protective equipment. We switched the vast majority of our visits to digital visits including both virtual visits (video) and scheduled phone visits. Face-to-face diabetes visits were restricted to patients being newly started on insulin therapy. For the first time ever, on March 24, 2020, there were more virtual visits than face-to-face visits at OHSU. At the HSDHC, we completed 98 virtual visits and 99 phone visits in the week ending April 3, 2020. In April 2020, HSDHC was performing a higher rate of digital visits than any other specialty at OHSU and we project 75% of our digital visits will be video soon.

Moving to digital visits presented challenges. Workflows were quickly established for support personnel who were transitioning to telecommuting at the same time. First, we needed to communicate to patients the need for the appointment changes and uncertain associated financial obligations, an enormous task considering our diabetes population of 5700 adult and 1300 pediatric patients. Next, we had to establish patients' physical location for the virtual visits. We did not have clearance from the Washington medical board to do virtual visits with our patients when they are physically in the state of Washington. Patients also needed access to appropriate technology, such as a smartphone or tablet, Wi-Fi, and MyChart, an online patient portal. Prior to the pandemic, the HSDHC was already an institutional leader with 80% of patients active on MyChart. Healthcare providers also needed appropriate training, credentialing,

hardware, and software to conduct virtual visits. The pediatric providers were already conducting telemedicine visits prior to the pandemic, but these were visits conducted with the patient at a remote clinic with the assistance of a nurse and an outfitted exam room. They were not credentialed for the required virtual visits direct to patients. We found that the time allotted for a virtual visit was insufficient to gather glucose or insulin data. Our diabetes educators now call patients in advance to assist with gathering glucose meter, continuous glucose monitoring (CGM), and insulin pump data. Although diabetes educators were not initially credentialed to perform virtual visits, they were able to support patients in diabetes technology management and other needs. Our method of handling paperwork also had to change to sending it via secure email for signatures. With the need to rapidly adapt our procedures, all staff were asked to participate in a daily virtual huddle to discuss process changes and any ongoing challenges.

The process of moving over to virtual medicine revealed multiple issues that extend past the pandemic. For one, it is overly burdensome to ask patients to travel hundreds of miles to conduct a 25-minute clinic visit that could be performed virtually. In our opinion, regulations should change to allow patients to be in any state during the visit. These virtual visits should be covered by insurance with no increase in out-of-pocket costs. We also needed to resolve how trainees can perform virtual visits with adequate faculty supervision, documentation, and billing. In addition, every patient needs similar access to technology. Access to free or low-cost Wi-Fi should be universal. We also found that it is much easier to assess glucose control remotely using CGM.

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Patients can be invited to share device information with our clinic, accessed by logging in to the manufacturer's online portal. This obviates the need to download a device or have patients read off glucose values from a meter. Our move to telemedicine also highlighted the need for supply companies to move away from circa 1980 paper forms and shift everything to electronic portals.

Virtual visits will not and should not replace all face-to-face visits. Seeing new patients virtually is not ideal. It is more difficult to establish rapport, and baseline data such as blood pressure values and weight have to be gathered by patients or not gathered at all. Physical examination is nearly eliminated. We have also found that it is more difficult to address behavior modification virtually, which is better suited for a face-to-face visit.

The SARS-CoV-2 pandemic has likely forever changed how we practice. This experience makes certain that virtual visits will be major part of our future reducing labor costs, relieving space issues, reducing late cancellations and no shows, expanding provider availability in evenings and weekends, and facilitating more consistent follow-up.

Our paperwork processes have become more efficient. And we found that in the face of challenging times, our patients, clinic staff, and providers are resilient, adapting rapidly and with good nature.

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