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EDITORIAL

The Doctor Will Call You Now! Telemedicine in the Midst of a Pandemic

The patient–physician relationship traditionally has been centered around face-to-face contact, be it at a house call, an outpatient visit, or during a hospitalization. This relationship, cemented by the image of a careful assessment of the patient's pulse by a physician or a thoughtful physical examination, has been immortalized in countless books and movies. Historically, although the applicability, convenience, and cost effectiveness of telemedicine has been recognized and supported by a scattering of evidence, telemedicine has not gained widespread popularity for a number of reasons.[1,2] Both patients and providers have remained unconvinced that it can replace the value of a face-to-face encounter, and, importantly, reimbursement for telephone- or video-based appointments have been a fraction of in-person care, thereby limiting the adoption of this technology. However, the unprecedented challenges thrust on the health care system by the ongoing COVID-19 pandemic has brought telemedicine to the forefront on a broad scale as never before. In an attempt to minimize health care–associated transmission of the SARS-CoV2 infection and protect patients and providers, most major health care systems in the United States have shut down routine outpatient clinical care. Instead, and almost overnight, traditional face-to-face care has been widely replaced by telephone- or video-based visits. Although the initial impetus for this was to minimize disruption to patient care rather than a financial incentive, an important step legitimizing this as an acceptable and equivalent mechanism for care delivery were steps such as those announced by the Centers for Medicare and Medicaid services whereby video-based telemedicine visits would be reimbursed at parity with office-based appointments on a temporary and emergency basis. Hence, it is highly plausible that telemedicine is here to stay.

There is a growing body of evidence that has examined the value added by telemedicine. This study by De Jong et al[3] is a cost-effectiveness analysis of a randomized trial that showed that the use of the myIBDcoach telemedicine portal reduced the number of outpatient gastroenterologist visits and hospitalizations in patients with inflammatory bowel diseases (IBDs) when compared with standard of care; of note, there was no difference in the rate of emergency visits, number of flares, or quality of life between the 2 groups.[4] In this analysis, the authors estimated a cost saving of 547 Euros per patient annually, which, if extrapolated to the more than 3 million individuals with IBD in Europe, could result in substantially lower health expenditure related to IBD with telemedicine compared with traditional care. In a real-world setting, Allocca et al[5] described their experience during the COVID-19 pandemic in Milan where virtual consultations resulted in minimal disruptions to clinical care of established patients or those enrolled in clinical trials, although new patient appointments were deferred. Other randomized trials in IBD similarly have shown a telemedicine-based approach to be effective in improving disease activity,[6] reducing IBD-related hospitalizations,[7] and improving disease-related knowledge.[8] There are fewer rigorous studies of telehealth for other gastrointestinal diseases, and benefits have been noted in some, but not all, studies.[9] In addition, in this issue of *Clinical Gastroenterology and Hepatology*, in a study of telehealth for pre–liver transplant evaluation, John et al[10] showed that compared with standard of care, a telehealth approach had a shorter time to evaluation and shorter time to listing without increasing pretransplant mortality. Telemedicine has shown benefit in improving outcomes in patients with diabetes[11] and heart failure,[12] although not all studies have shown benefit unequivocally. Apart from direct care delivered through telemedicine, integration of smartphone–linked sensors also similarly have shown modest benefit, at best.[13]

Although the study by de Jong et al suggested that for patients with IBD a telemedicine approach can be cost saving in the context of a clinical trial, there are many unanswered questions that remain in translating this to routine care after COVID-19. Although a brief telemedicine visit may work well for monitoring of well-controlled chronic diseases on stable therapy in an engaged patient group, whether it would offer the same degree of reassurance and empathy in a patient newly confronted with a challenging diagnosis (eg, a new diagnosis of IBD) or treatment choice (eg, initiation of long-term immunosuppressive therapy or consideration of a permanent stoma) remains to be established. Indeed, one cannot yet envision counseling a patient about a new diagnosis of advanced-stage cancer or the futility of further treatment over a telemedicine portal. The art of medicine often involves assessment of the unspoken, an exchange of a furtive glance between the child and the parent or between spouses, that suggest to the provider that one party may be underplaying their symptoms or overemphasizing their treatment adherence. How the patient carries themselves, whether they are comfortable or in distress, are important components of the overall assessment of the clinical status of the patient but cannot be inferred remotely with both parties seated at their video screens from the beginning to the end of the visit. Anecdotally, in our personal experience, telemedicine visits have been significantly shorter than face-to-face encounters with the same

patient. Whether the shortening of the 15-minute in-person visit to a 5-minute video call just distills out the extraneous without meaningfully impacting patient care or whether the gap represents questions that were unasked and unanswered can be debated, but likely will include parts of both. Indeed, the meaningless chatter at the beginning and end of in-person visits may strengthen the patient–provider relationship, encouraging adherence to therapy and showing openness to engagement; and this relationship-building may end up being sacrificed at the altar of telemedicine. Although the population as a whole is more technologically savvy than a couple of decades ago, certain patient populations, including the elderly and socioeconomically or developmentally disadvantaged, may not be in a position to participate or benefit optimally from telemedicine consultations, and thus this system has the potential to unintentionally create bias. In addition, health discussions may involve sensitive topics that are challenging to conduct at the best of times within the 4 walls of an office room, let alone with the physical and technological porousness of telemedicine.

Once (and hopefully sooner rather than later) the curve has been flattened on this pandemic and things are ready to move back to the regular order of business, should telemedicine be abandoned once again in favor of face-to-face office visits? To do so would be an enormous disservice. As the study in this issue of *Clinical Gastroenterology and Hepatology* emphasizes, telemedicine has the potential to be significantly cost saving to the health care system and, indeed, to society. In regions of the country where specialist centers are few and far between, telemedicine is critical to allow many patients to benefit from remote specialist care, ensuring they have access to the state-of-the art treatment algorithms despite the geographic distance. For the stable, well-controlled patient or a general well visit, an in-person office visit often may mean several hours away from home or work in terms of commute, waiting, and the visit itself. Telemedicine will be an attractive alternative in that setting. Indeed, the efficiency conferred by incorporating telemedicine for such situations may free up office and provider time for other patients in need. There are several opportunities to enhance a simple video or telephone appointment through the use of technology incorporating remote vital signs (such as through a smart watch) and point-of-care laboratory assessments that can be performed at home. It is important to remember that the more sophisticated the technological platform, the greater the likelihood of introducing inequality in care such that not all patients will be in a position to benefit equally from and adopt such technology. From a payor standpoint, it is important to permanently recognize the value of care delivered through telemedicine and make doing so sustainable to health care systems and providers. Without the appropriate reimbursement and recognition, widespread adoption will remain unlikely.

In conclusion, an unprecedented pandemic has brought telemedicine to the forefront of medical care. It is important for us to learn from our shared experiences in this situation so that once we return to the regular order of business, we do not make the mistake of either entirely reverting back to the old or abandoning the tried and tested for the new and shiny, but instead appropriately mix the two to concoct a delicious cocktail.

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Conflicts of interest
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