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## Do I really need to see my doctor? A changing paradigm in the physician-patient relationship in the time of COVID-19 and telehealth

We can all remember the day in early March 2020 when we realized that the world as we knew it was about to change. Meetings were held, decisions were made, treatment cycles were canceled, scores of patients were notified, and new protocols were developed on the fly. One of the apparently easiest decisions made was to ramp up the telemedicine platforms to safely continue patient care without having to physically bring individuals into clinic. In support of this effort, the American Society for Reproductive Medicine Coronavirus/COVID-19 Task Force, in Update #1, published the following statement as item #5 of its principal recommendations: Minimize in-person interactions and increase utilization of telehealth (1).

Before the pandemic, American medicine had an uneasy relationship with telehealth. There had been reasonable penetration in some areas, including remote settings where travel to a care facility may involve hours of driving, and there were a few local provider champions who embraced the technology. Overwhelmingly, however, the physician-patient relationship remained an in-person dyad, and conventional wisdom had it that doctors and their patients picked up cues and information from each other that could only be obtained in the same room.

A review of the medical literature before the pandemic revealed that information on the telehealth was limited and most articles seemed to be more theoretical with relatively few practical explorations of telehealth's efficacy. Between 2007 and 2015, there were 58 systematic reviews derived from 965 articles evaluating telehealth (2). In a review by Tuckson et al. (2) in the New England Journal of Medicine and bemoaning the lack of even rudimentary primary evidence outside of teledermatology, limited pediatric emergencies, and mental health, the investigators issued a recommendation for research or improvements in 12 areas (physician leadership in improving technologies, reimbursement, licensure, liability, quality and safety risks, device integration, privacy and security, performance, patient engagement, and research design) that would allow telehealth to take its place as a proper platform to provide patient care.

In a remarkable feat of prescience, a multicenter group published a systematic review of the published literature in obstetrics and gynecology in February 2020 and found 47 articles that met criteria for the assessment of telehealth articles in the field (3). The review noted that there was evidence for equivalence if not superiority in smoking cessation and breastfeeding, a reduction in the number of in-person visits for high-risk obstetrics clinics with no difference in outcomes, a reduction in preeclampsia, and improved continuation rates for oral contraceptives. Other areas of comparison were inconclusive. Equally timely was an American College of Obstetricians and Gynecologists Committee Opinion, also published in February 2020, that reviewed the requirements for

a successful telehealth program, including an understanding of the regulatory framework (state and federal), security, licensure, credentialing, technical aspects (including adequate interface platform and connectivity), liability, and billing issues (4). Nevertheless, there was little practical experience with remote consultation and management of patients in our field.

The COVID-19 pandemic led to a 2,000% increase in telemedicine visits on some platforms by April 2020 (5). Given prior experience, did everyone just become an expert in telehealth overnight? Did all the ethical, legal, and social issues just disappear overnight with the looming emergency? Probably not and only now are assessments emerging on how we did in implementing telehealth in all our practices. A PubMed search using the terms telehealth or telemedicine and reproductive endocrinology or infertility reassuringly reveals a handful of articles assessing our performance. The self-assessment has begun!

Despite five COVID-19 waves at the time of this writing and with uncertainty regarding how long the pandemic will last, our current healthcare situation can certainly be considered a mature theater of operations that will allow us an opportunity to pause and reflect on where we are with telehealth, its role in reproductive endocrinology, and how we anticipate it will continue to be used once we are past COVID-19. It is also important to understand that telehealth is not just the remote clinic visits providers and patients have as a replacement for inperson encounters but a "technology-enhanced health care framework that includes services such as virtual visits, remote patient monitoring, and mobile health care" (4). The forced experiment we have all been participating in since the start of the pandemic may have some silver linings. Assumptions surrounding what the physician-patient relationship consists of have been shaken, for both the provider and patient, and this may be an opportunity to explore new paradigms of care.

The shifts induced by COVID-19 are coming at the same time that reproductive endocrinology and infertility (REI) is facing other challenges. Demand in REI is increasing and will continue to increase as more businesses are providing fertility coverage and more states are considering implementation of insurance mandates. The REI workforce is struggling to keep up with the increased demand. We must continue to provide the highest quality care for our patients while accommodating the ever-greater number of patients coming our way. Telehealth writ large, with greater access to care, innovative technologies, and creative treatment team models, may be an important part of the solution to accommodate the increased demand and to continue to provide exceptional care for our patients.

## Ruben Alvero, M.D.

Division of Reproductive Endocrinology and Infertility,
Department of Obstetrics and Gynecology, Stanford
University School of Medicine, Stanford, California; and
Fertility and Reproductive Health, Lucile Packard Children's
Hospital, Palo Alto, California

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