



Editorial

The Application of Telemedicine in Urology

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Traditionally, telehealth was not widely used in Urology, but Urologists' usage of telemedicine nearly tripled during the Covid 19 pandemic. It was successful for managing some common urological conditions, including erectile dysfunction, infertility, uncomplicated urinary stones, uncomplicated urinary infections, and urinary incontinence. While the rates of telehealth adoption may decrease slightly from pandemic levels, virtual visits are likely to play a larger role in urology in the future [1]. There are differences in the use of telemedicine. These differences were not associated with provider qualities. Further study is needed to overcome barriers in access to telemedicine. Telemedicine can be successfully integrated into urologic practices but there are disparities in utilization based on patient age, race/ethnicity, and insurance status. Urologic community attention is necessary to promote equal access to telemedicine modalities as this technology will continue to be an integral role in future practice [2].

The spread of coronavirus disease 2019 (COVID-19) infections has recently increased the interest in telehealth, which is the approval of telecommunication to deliver any health care activity. The available literature indicates that telemedicine has been adopted successfully in selected patients with several common clinical urological conditions, including prostate cancer, uncomplicated urinary stones, uncomplicated urinary infections, urinary incontinence, or pelvic organ prolapse. The COVID-19 pandemic will give a significant boost to the use of telemedicine, but more data on long-term efficacy, safety, and costs are necessary [3]. Telehealth is watchfully used in urology. Barriers to accomplishment include technological skill, repayment uncertainties, and resistance to change in workflow. Telehealth technologies are shown to be safe, effective, and satisfactory for patients and providers. Further investigation is necessary to determine the efficacy of telehealth applications [4]. The COVID-19 pandemic has transformed healthcare delivery by introducing telehealth into common practice. Through telehealth-integrated patient management protocols and payment reforms, telehealth can have a constant effect on urological care delivery even after the pandemic. Urologists should take this opportunity

to shift the way we deliver care for many common urological diagnoses.

The Telehealth modalities could be:

- a. Video visit, which is a live simultaneous audiovisual visit between patient and provider using teleconferencing software.
- b. Virtual check-in is a brief visit between patient and provider using telephone or teleconferencing software to determine whether in-person evaluation is needed.
- c. eVisit is a communication between patient and provider via an online patient portal.
- d. eConsult (interprofessional consult) A written electronic communication between referring provider and consulting physician involving review of a patient's medical record and treatment recommendations [5].

Urology providers are generally satisfied with their experience communicating with patients via telemedicine and the majority would decide on to continue utilizing telemedicine. Nevertheless, many providers are hesitant to schedule surgery via telemedicine [6].

Telehealth was utilized for a wide range of diseases and often used in conjunction with primary care (PC) and urologic Face-to-Face (FTF) visits to deliver complete care. The most common urologic conditions evaluated during the initial telehealth meeting (including both general urology and sexual dysfunction clinics) were sexual dysfunction 26.8% (217/811), LUTS 20.6% (167/811), hematuria 15.0% (122/811), prostate cancer 13.3% (108/811), and an elevated PSA 12.1% (98/811) [7]. Urology Virtual clinics are a promising new platform which can offer clinical, financial and environmental benefits to support an increasing urological referral burden. Further prospective evidence is required across urological sub-specialties to confirm equivalency and safety against traditional face to face assessment [8]. Telemedicine approach limits the number of unnecessary accesses to medical facilities and represents an important tool for the limitation of the risk of transmission of infectious diseases, such as COVID-19. However,

infrastructures, health workers, and patients should reach out to a computerization process to allow a wider diffusion of more advanced forms of telemedicine, such as televisit [9].

Another study indicated that telemedicine could achieve a cost savings without compromising the safety or adversely affecting patient management. Further studies should define the benefits and any limitations, and reveal how the technology could be used effectively [10]. In the field of children with neurogenic bladder, telehealth as a community-monitoring project within children's urology care is an innovative development. There is limited evidence of the inclusion of staff and parents in the early-stage development and later adoption of telehealth initiatives within routine urological nursing care or families' management of their child's bladder. The aim was to explore the experiences of involved individuals (parents, clinicians, and technical experts) in terms of remote community-based urinalysis monitoring by parents of their child's urine. Methods designed used soft systems methodology tools to inform data collection and analysis following interviews, observation, and e-surveys. Other findings showed that the parents adopted aspects of the telehealth intervention (urinalysis) but were less engaged with the voiding diary and weighing. The parents gained confidence in decision-making and identified that the intervention reduced delays in their child receiving appropriate treatment, decreased the time burden, and improved engagement with general practitioners. Managing the additional workload was a challenge for the clinical team. Parental self-efficacy was a clear outcome from the intervention. Parents exercised their confidence and control and were selective about which aspects of the intervention they observed as having credibility and which they valued [11].

Telemedicine adoption increased in rural and remote areas during the COVID-19 pandemic, but its use increased in urban and less rural populations. Future studies should investigate the potential barriers to telemedicine use among rural patients and the impact of rural telemedicine on patient health care utilization and outcomes [12]. To conclude I quote from the American Urological Association task force report that was revised last year. The report declares that Urology telemedicine has developed in many different formats and serves as examples of how an electronic revolution like Gutenberg's printing press has the potential to transform health care. Telemedicine may help address the anticipated shortage of urologists in the near future. It is crucial to focus on those who benefit most from this new technology (i.e. underserved populations) and ensure equal access. Urologists have been pioneers in the use of telemedicine, particularly in the areas of telerobotic surgery, teleproctoring, telementoring, and telerounding. It is possible that telemedicine will become completely integrated into urologic training and health care delivery to fulfill the proposition of access and quality of urologic care [13].

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