



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Video Visits as a Substitute for Urological Clinic Visits



Juan J. Andino, Mark-Anthony Lingaya, Stephanie Daignault-Newton, Parth K. Shah, and Chad Ellimoottil

OBJECTIVE	To evaluate whether video visits were being used as substitutes to clinic visits prior to COVID-19 at our institution's outpatient urology centers.
METHODS	We reviewed 600 established patient video visits completed by 13 urology providers at a tertiary academic center in southeast Michigan. We compared these visits to a random, stratified sample of established patient clinic visits. We assessed baseline demographics and visit characteristics for both groups. We defined our primary outcome ("revisit rate") as the proportion of additional healthcare evaluation (ie, office, emergency room, hospitalization) by a urology provider within 30 days of the initial encounter.
RESULTS	Patients seen by video visit tended to be younger (51 vs 61 years, $P < .001$), would have to travel further for a clinic appointment (82 vs 68 miles, $P < .001$), and were more likely to be female (36 vs 28%, $P = .001$). The most common diagnostic groups evaluated through video visits were nephrolithiasis (40%), oncology (18%) and andrology (14.3%). While the 30-day revisit rates were higher for clinic visits (4.3% vs 7.5%, $P = .01$) primarily due to previously scheduled appointments, revisits due to medical concerns were similar across both groups (0.5% vs 0.67%; $P = .60$).
CONCLUSIONS	Video visits can be used to deliver care across a broad range of urologic diagnoses and can serve as a substitute for clinic visits. UROLOGY 144: 46–51, 2020. © 2020 Elsevier Inc.

Since the onset of the COVID-19 pandemic, the use of video visits to care for patients from their home has grown exponentially for non-urgent issues.¹ Although video visits—live simultaneous audio and visual interactions with patients conducted via videoconferencing platforms—are not new, loosened federal and state regulations have accelerated their expansion during this national emergency.² For instance, the Centers for Medicare & Medicaid removed the originating site requirement, meaning all patients, established and new, are now allowed to engage in telehealth from their homes regardless of geographic location.^{3,4} Complementing these national policies, many state-specific changes are permitting Medicaid patients to receive more care from home and providers to practice across state lines.⁵ Both federal and state regulatory and reimbursement policies previously cited as barriers to wide-spread telehealth

use have been relaxed in an effort to sustain social distancing and mitigate the spread of COVID-19 while continuing to deliver care.⁶⁻⁸

Prior studies have shown that video visits are safe, cost-effective, and appealing to patients in primary and specialty care settings.⁹ Within urology, previous research has demonstrated the benefits of telehealth for patients, namely decreased travel time, lower costs, and increased convenience.¹⁰⁻¹⁴ However, it is largely unknown whether video visits in urology can serve as a substitute for clinic evaluations. This critical knowledge gap amplifies uncertainty for policymakers, providers, and healthcare administrators who must understand the downstream impact of widespread video visit adoption. For example, it is plausible that the use of video visits increases overall healthcare utilization, particularly if the visits set the stage for inadequate evaluations of the patient, or if the patient perceives the visit as insufficient and requires a second in-person encounter. Ashwood et al found that virtual visits, including video, were less costly for health systems based on claims data but increased overall healthcare utilization—leading to increased healthcare spending.¹⁵ Conversely, urologic video visits may make healthcare delivery more efficient by directly substituting for clinic visits for patients where the physical examination will not impact decision making. In a prospective observational study of on-demand video visits in an academic center emergency room, nearly three-quarters of patients felt their concerns were

Financial Disclosure: The authors declare that they have no relevant financial interests.
Support: Dr. Ellimoottil's research is supported by the Telehealth Research Incubator project grant (MPROVE Research Challenge Grant) but these funds were not required for completion of this project.

From the Department of Urology, Michigan Medicine, Ann Arbor, MI; the University of Michigan Medical School, Ann Arbor, MI; and the Institute for Healthcare Policy and Innovation, University of Michigan, Ann Arbor, MI

Address correspondence to: Juan J Andino, M.D., M.B.A., University of Michigan, Department of Urology, A. Alfred Taubman Health Care Center - Room 3875, 1500 E. Medical Center Drive, SPC 5330, Ann Arbor, MI 48109-5330.

E-mail: juanjose@med.umich.edu

Submitted: April 24, 2020, accepted (with revisions): May 20, 2020

addressed using telehealth without seeking further evaluation in a doctor's office, urgent care, or emergency room.¹⁶

We hypothesized that these visits served as substitutes for clinic encounters, without requiring an additional in-person evaluation within 30 days. To answer this question, we evaluated our video experience up to February 2020, a month before COVID-19 was declared a national emergency reducing restrictions on which patients can be evaluated and managed using telehealth.^{17,18} We aim to use pre-COVID-19 data to inform providers, payers, and policymakers on video visits were used by urologists prior to the pandemic and inform how they can continue being used in the future.

METHODS

We performed a retrospective study of the video visit program in the Department of Urology at a single institution from July 11, 2016 to February 4, 2020. Study exemption was obtained from the institutional review board (HUM00141665). We included all patients who completed a video visit during the study period. These visits were performed by eleven urologists and two urology physician assistants. Patients were offered video visits if it was determined that an in-person physical examination would not impact clinical management. All video visits were performed using a Health Insurance Portability and Accountability Act (HIPAA)-compliant, video communication system integrated into the EPICTM electronic medical record (EMR). Scheduling of telehealth visits varied from provider to provider. Some providers elected to schedule their visits in blocks, whereas some providers had these visits interspersed throughout their schedule. Our control group comprised an equal number of randomly selected established patients who completed a clinic visit. To reduce clinical differences between our study and control group, we only included encounters from the study period and matched our control population by selecting in-person visits at a 1:1 ratio with each provider's video visit volume. To accurately understand baseline characteristics and outcomes of video visit encounters, we only included video visits conducted prior to the COVID-19 pandemic. While we have performed many more video visits during the pandemic, these visits were excluded because the extraordinary nature of the pandemic would confound the assessment of our primary outcome.

Our tertiary care institution, Michigan Medicine, and satellite clinics are located in Southeastern Michigan and serve urban, suburban, and rural populations across the state of Michigan, as well as neighboring states. We collected demographic information, including gender, age, and insurance coverage through an EMR-based report. We estimated roundtrip distance between each patient's hometown and the clinic their providers are located in using Google Maps and obtained city-based income estimates through Data USA. We also collected data on primary diagnosis code for their follow-up visit which we used to categorize visits into clinical groups including general urology, oncology, andrology, female pelvic medicine and reconstructive surgery; diagnoses such as nephrolithiasis and lower urinary tract symptoms; and symptoms without a final diagnosis such as genitourinary pain, imaging findings, and other (Appendix I).

Our primary outcome was revisit rate defined as an in-person evaluation within 30 days of the patient's initial visit by any urologist or urology advanced practice provider. We included clinic, emergency room, and in-patient hospitalization encounters in our evaluation. We excluded telephone calls because of the inconsistency in documentation and common use of telephone calls for informal updates and sharing of information that is not billed or reimbursed. During data analysis, we identified a secondary outcome of interest when we found that a majority of revisits after video and clinic encounters were due to previously scheduled appointments or clinic procedures. We hypothesized that there would be no difference in revisits that were scheduled due to a medical concern from either a patient or provider.

A secondary outcome was the clinically relevant revisit rate defined as an in-person evaluation within 30 days of the patient's initial visit by any urologist or urology advanced practice provider due to new or persistent medical concern. Through review of EMR documentation, we differentiated previously scheduled appointments from clinically relevant revisits. Chi-Squared (χ^2) test or Wilcoxon rank test was used to identify differences in demographic characteristics. Cochran-Mantel-Haenszel (CMH) test was used to identify differences in revisit and clinically relevant revisit rates due to the stratification of clinic visits by provider.¹⁹ The data analysis for this paper was generated using SAS software, Version 9.4 of the SAS System for Windows. Copyright 2013 SAS Institute Inc.

RESULTS

Between July 11, 2016 and February 4, 2020, we identified a total of 600 completed video visits and compared them to 600 clinic visits stratified by provider. The median age of patients using video visits was 51, ranging from 18 to 95 years of age, compared to a median age of 61, ranging from 19 to 95, for clinic visits ($P < .0001$). Thirty-six percent of video visit patients self-identified as women, compared to 28% of patients participating in clinic encounters ($P = .0013$). The median roundtrip estimated travel distance for video visit patients was 82 miles and ranged from 0 to 1548 miles. This was greater than the median estimated distance of 68 miles, ranging from 0 to 3686 miles, traveled by patients seen in clinic ($P < .0001$). Insurance coverage also differed between these 2 groups with higher rates of commercial insurance coverage for patients using video visits (81.2% vs 54.7%, $P < .001$). There was no difference in the median income of patients' hometowns (Table 1). There were 114 (19%) postoperative video visits compared to 113 (18.8%) postoperative clinic visits ($P = .94$). A wide variety of urologic conditions were seen across video and clinic visits. The most common diagnostic groups seen through video visits included nephrolithiasis (39.7%), oncology (18%) and andrology (14.3%). For clinic visits, nephrolithiasis (28.7%), oncology (17.5%), and lower urinary tract symptoms (16.5%) made up the largest proportion of encounters (Fig. 1).

The revisit rate was lower for video visits compared to clinic visits over our study period. Twenty-six patients were seen within 30 days after their video visit (4.3%) compared to 45 patients after a clinic encounter (7.5%, CMH $P = .01$). There were no ED visits or hospitalizations within 30 days of either video or clinic visits. However, the clinically relevant revisit rate was similar across both groups (0.5% of video visits and 0.67% of clinic visits, CMH $P = .60$; Fig. 2). For video visits, there were 3 repeat evaluations driven by medical concerns.

Table 1. Demographic characteristics of video and clinic visits

	Video Visit		Clinic Visit		P Value Wilcoxon Test
	Median	IQR	Median	IQR	
Age, years	51	36-62	61	45-71	<.0001
Distance, miles (max)	82 (1548)	36-228	68 (3686)	34-128	<.0001
Median Income	\$53,237	\$39,000-\$68,403	\$54,722	\$37,037-\$63,876	.53
	n (%)		n (%)		P Value (χ^2)
Gender					.0013
Woman	218 (36%)		166 (28%)		
Man	382 (64%)		434 (72%)		
Insurance					<.0001
Commercial	487, 81.2%		328, 54.7%		
Medicare	81, 13.5%		166, 27.7%		
Medicare Advantage	14, 2.3%		64, 10.7%		
Medicaid	10, 1.7%		37, 6.2%		
Self-pay	7, 1.2%		0, 0%		
Military	1, 0.2%		5, 0.8%		

These occurred after post-operative follow-up visits and included a wound check and concerns about post-operative pain. None required further testing or treatment after in-person evaluation. For clinic visits, there were four clinically relevant revisits which included superficial skin infections, flank pain, and peristomal rash. Similarly, these occurred after postoperative clinic visits. None required further testing and one superficial skin infection was treated with oral antibiotics. The remaining revisits that occurred across both groups included scheduled appointments for subspecialist urologic follow-up, clinic procedures, or nursing appointments for clean intermittent catheterization or foley catheter management.

DISCUSSION

In this study, patients using video visits tended to be younger, would have to travel further for a clinic appointment, and were more likely to be female. As expected, the vast majority of patients using video visits had commercial insurance coverage based on telehealth parity laws that allowed for coverage and reimbursement. Providers

conducted and completed video visits across a broad range of urologic conditions and there was no difference in the number of post-operative visits across groups. While the 30-day revisit rate was higher after clinic visits, there was no difference in the rate of clinically relevant revisits. Together, these findings suggest that urological video visits can safely substitute in-person visits when providers chose what patients are appropriate for telehealth evaluation and management.

The Centers for Medicare and Medicaid Services originating site requirement was in place and a major barrier to the use of video visits with Medicare beneficiaries, who are 65 and older.²⁰ Furthermore, in the state of Michigan, commercial payers cover and reimburse video visits at similar rates to clinic visits. This combination of state and federal policies in part explains why video visit users tended to be younger and the vast majority had commercial insurance coverage.²¹ In addition, patients had the option to use a hospital-based, flat fee schedule when video visits were not covered by their insurance. Prior researchers have demonstrated the value of urologic video

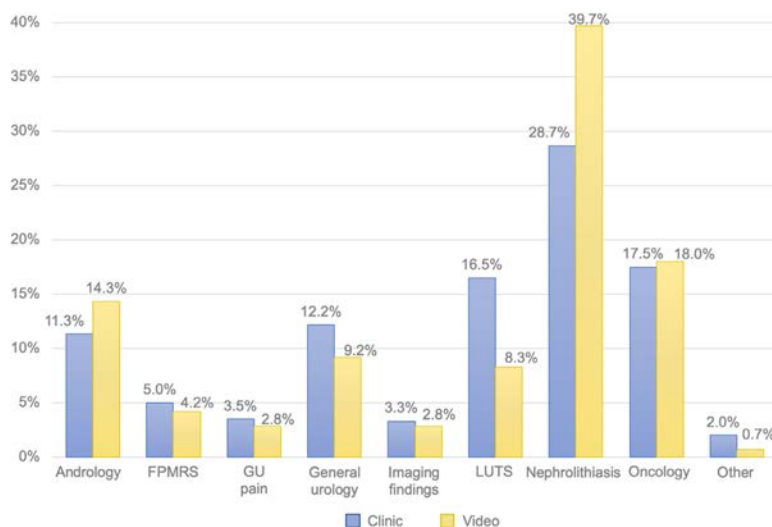


Figure 1. Categorization of urologic diagnoses managed through video or clinic visits. (Color version available online.)

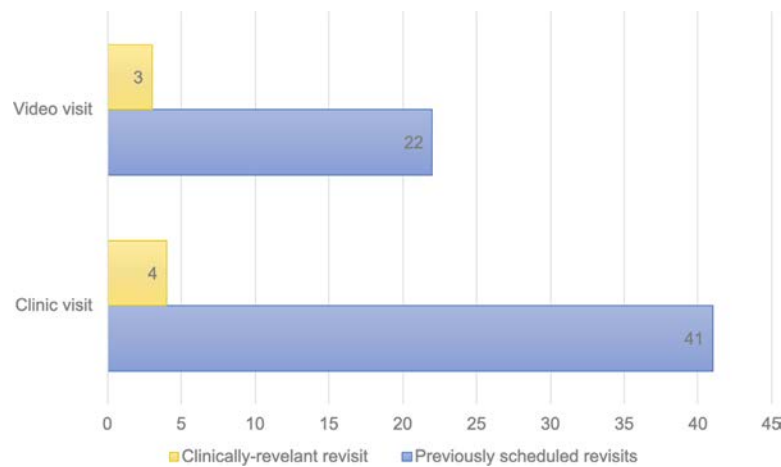


Figure 2. Number of revisits within 30 days of initial encounter. (Color version available online.)

visits in an outpatient setting and studies have confirmed that telehealth is not only a safe alternative to urologic clinic visits but also cost-effective, more efficient for patients, and with high patient satisfaction.^{10,22-24} While the overall revisit rate for clinic encounters was higher than video visits in our study, this difference was primarily driven by previously scheduled appointments. When we compared the clinically relevant revisit rate, we found no difference between video and clinic visits. These findings suggest that at least for 30 days after their initial encounter, video visits provide equal level of care as clinic visits when clinicians account for the impact of the physical examination on decision making.

Our study does have several limitations. First, this was a single institution and single specialty study in an outpatient setting. These results are therefore not generalizable to inpatient care, emergency urological care, or other outpatient specialty clinics, especially in scenarios where physical examination findings will inform decision-making. Second, we evaluated whether patients returned for a urologic visit within 30 days at our institution. This may not capture urologic issues addressed by primary care physicians, healthcare providers outside of our institution, or medical issues that arise more than 30 days after a visit. Third, the case-control design has inherent selection bias. While we attempted to reduce clinical differences by matching controls by provider, a randomized control trial is the optimal study design for this research question.

These limitations notwithstanding, our finding that video visits can serve as substitutes for clinic visits across a spectrum of urologic conditions should help mitigate provider concerns about using video visits during and after the COVID-19 pandemic. Relevant to payers, these results demonstrate that video visits are safe ways for patients to be managed by their providers without increasing overall healthcare utilization. For policymakers, this data should be used to advocate for upholding the current changes in health policy that allow for equal reimbursement of video visits while allowing new patients to access providers virtually. The use of telehealth has expanded exponentially and will continue to do so during the

COVID-19 pandemic.¹ Future research should evaluate whether the low proportion of patients requiring in-person evaluation extends beyond 30 days, which conditions are more or less suited for telehealth, and how this medium can mitigate or perpetuate health disparities. Patient-specific barriers to telehealth use such as computer or smartphone access, internet coverage, and digital literacy disproportionately impact low socioeconomic groups, people of color, and the elderly.²⁵ If not all patients are able to participate in video visits, different strategies such as reimbursing for phone visits may need to be explored. Furthermore, with the expansion of telehealth services to new patients during COVID-19, researchers must evaluate the impact on access to urologic care especially given existing concerns about workforce shortage issues and impact of rurality on access to specialty care.^{26,27}

CONCLUSION

Video visits can be used to deliver care across a broad range of urologic diagnoses and can serve as a substitute for clinic visits.

SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found in the online version at <https://doi.org/10.1016/j.urology.2020.05.080>.

References

- Mehrotra A, Ray K, Brockmeyer DM, Barnett ML, Bender JA. Rapidly converting to “virtual practices”: outpatient care in the era of COVID 19. *NEJM Catal*. 2020. <https://doi.org/10.1056/CAT.20.0091>.
- Gadzinski AJ, Ellimoottil C, Odisho AY, Watts KL, Gore JL. Telemedicine in urology: a crash course during the COVID-19 pandemic. <https://www.urologytimes.com/coronavirus/telemedicine-urology-crash-course-during-covid-19-pandemic>. Published 2020. Accessed March 31, 2020.
- CMS. *Physicians and Other Clinicians : CMS Flexibilities to Fight COVID-19*; 2020. <https://www.cms.gov/files/document/covid-19-physicians-and-practitioners.pdf>.

4. The White House. Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak. White House Proclamations. <https://www.whitehouse.gov/presidential-actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/>. Published 2020. Accessed 5 April 2020.
5. Center for Connected Health Policy. COVID-19 Related State Actions. CCHP Telehealth Policy. <https://www.cchpca.org/resources/covid-19-related-state-actions>. Published 2020. Accessed 5 April 2020.
6. Bootsma MCJ, Ferguson NM. The effect of public health measures on the 1918 influenza pandemic in U.S. cities. Chowell G, ed. *Proc Natl Acad Sci*. 2007;104:7588–7593. <https://doi.org/10.1073/pnas.0611071104>.
7. Gavin K. Flattening the Curve for COVID-19: What Does It Mean and How Can You Help? Michigan Health Lab. <https://healthblog.uofmhealth.org/wellness-prevention/flattening-curve-for-covid-19-what-does-it-mean-and-how-can-you-help>. Published 2020. Accessed 5 April 2020.
8. Badalato GM, Kaag M, Lee R, Vora A, Burnett A, AUA telemedicine workgroup the role of telemedicine in urology: contemporary practice patterns and future directions. 2020. doi:10.1097/UPJ.0000000000000094.
9. Gettman M, Rhee E, Spitz A. Telemedicine in urology. *AUA White Pap*. 2016:3081. <http://www.auanet.org/guidelines/telemedicine-in-urology>.
10. Viers BR, Lightner DJ, Rivera ME, et al. Efficiency, satisfaction, and costs for remote video visits following radical prostatectomy: a randomized controlled trial. *Eur Urol*. 2015;68:729–735. <https://doi.org/10.1016/j.eururo.2015.04.002>.
11. Andino JJ, Guduguntla V, Weizer A, et al. Examining the value of video visits to patients in an outpatient urology clinic. *Urology*. 2017;110. <https://doi.org/10.1016/j.urology.2017.07.050>.
12. Nikolian VC, Williams AM, Jacobs BN, et al. Pilot study to evaluate the safety, feasibility, and financial implications of a postoperative telemedicine program. *Ann Surg*. 2018;268:700–707. <https://doi.org/10.1097/SLA.0000000000002931>.
13. Finkelstein JB, Cahill D, Kurtz MP, et al. The use of telemedicine for the postoperative urological care of children: results of a pilot program. *J Urol*. 2019;202:159–163. <https://doi.org/10.1097/JU.0000000000000109>.
14. Ellimoottil C, Andino JJ, Mukundi S. Telemedicine in urology. *AUA Updat Ser Lesson*. 2018;37:271–276. <https://doi.org/10.1097/UPJ.0000000000000094>.
15. Ashwood JS, Mehrotra A, Cowling D, Uscher-Pines L. Direct-to-consumer telehealth may increase access to care but does not decrease spending. *Health Aff*. 2017;36:485–491. <https://doi.org/10.1377/hlthaff.2016.1130>.
16. Sterling R, LeRouge C. On-demand telemedicine as a disruptive health technology: qualitative study exploring emerging business models and strategies among early adopter organizations in the United States. *J Med Internet Res*. 2019;21. <https://doi.org/10.2196/14304>.
17. Centers for Medicare & Medicaid Services. *Medicare Telemedicine Health Care Provider Fact Sheet*; 2020. <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>. Accessed 7 April 2020.
18. Gadzinski AJ, Ellimoottil C, Odisho AY, Watts KL, Gore JL. Implementing telemedicine in response to the 2020 COVID-19 pandemic. *J Urol*. 2020;203. <https://doi.org/10.1097/JU.0000000000001033>.
19. Sato T. A further look at the Cochran-Mantel-Haenszel risk difference. *Control Clin Trials*. 1995;16:359–361. [https://doi.org/10.1016/0197-2456\(95\)00004-6](https://doi.org/10.1016/0197-2456(95)00004-6).
20. Centers for Medicare & Medicaid Services. *Medicare Claims Processing Manual*; 2019. <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf>. Accessed 2 September 2019.
21. Andino JJ, Castaneda PR, Shah PK, Ellimoottil C. The impact of video visits on measures of clinical efficiency and reimbursement. *Urol Pract*. 2020. <https://doi.org/10.1097/UPJ.0000000000000149>.
22. Ellimoottil C, Skolarus T, Gettman M, et al. Telemedicine in urology: state of the art. *Urology*. 2015;94:10–16. <https://doi.org/10.1016/j.urology.2016.02.061>.
23. Chu S, Boxer R, Madison P, et al. Urologic care to remote clinics. *Urology*. 2015;86:255–261. <https://doi.org/10.1016/j.urology.2015.04.038>.
24. Thelen-Perry S, Ved R, Ellimoottil C. Evaluating the patient experience with urological video visits at an academic medical center. *mHealth*. 2018;4. <https://doi.org/10.21037/mhealth.2018.11.02>. 54–54.
25. Velasquez D, Mehrotra A. Ensuring the growth of telehealth during COVID-19 does not exacerbate disparities in care. *Health Affairs Blog*. doi:10.1377/hblog20200505.591306.
26. Cohen AJ, Ndoye M, Ferguson KB, et al. Forecasting limited access to urology in rural communities: analysis of the American Urological Association Census. *J Rural Heal*. 2019;0:1–7. <https://doi.org/10.1111/jrh.12376>.
27. American Urological Association. Physician workforce planning and graduate medical education. AUA Policy Statements. <https://www.auanet.org/guidelines/physician-workforce-planning-and-graduate-medical-education>. Published 2018. Accessed 21 April 2020.

EDITORIAL COMMENT



In the United States, specialty care has traditionally been delivered through a familiar structure: a patient sees his primary care provider and, if the provider believes input from a specialist would be helpful, she refers the patient to a specialist, who then sees the patient in a face-to-face visit. This flow has endured mostly through inertia, with room for improvement of specialists' ability to manage populations of patients.¹ Innovative alternative models have shown a more nuanced way to deliver specialty care that meets the needs of patients and populations.²

The emergence of COVID-19 served as a natural experiment in reimagining care delivery. Sweeping efforts were undertaken to preserve resources and prevent nosocomial spread of COVID-19 as many healthcare providers dramatically decreased in-person clinic operations and, in concert, rapidly implemented telemedicine services. These services, including video and telephone patient-physician visits, have existed for decades, however widespread adoption has been hindered by regulatory policies regarding geography, privacy and reimbursement. The unique context of the viral pandemic resulted in immediate policy modifications that have enabled the brisk adoption of telemedicine, including in urology practice.

Although data exists regarding telemedicine feasibility, convenience and provider and patient satisfaction, there remains a critical knowledge gap pertaining to what exact purpose these visits are serving. Are they an additional step that serves as a prelude to in-person evaluation, ultimately increasing health-care utilization overall? Or can a subsequent in-person visit be safely avoided to the benefit of patients and healthcare systems alike? In this issue of UROLOGY, Andino et al present an important evaluation of video visits as substitutes for in-person visits at a large tertiary academic center. The authors report that, prior to the emergence of COVID-19 in the US, the proportion of patients who required a return visit within 30 days of a video visit was no higher than those who were initially seen in-person, suggesting that for appropriately screened patients a video visit can substitute for an in-person visit. This may reduce burdens on

socio-demographically and physically disadvantaged patients, who often pay a high price to physically come to clinic.

While COVID-19 will likely prove to serve as the tipping point for broad adoption of telemedicine, the work to be done is in getting these services to the appropriate patients with efficiency, quality and accessibility. Caution must be taken that in overcoming a barrier to access as it relates to geography, or travel time, we do not ignore barriers to access due to lack of devices, internet or language services. This will require rigorous implementation and delivery science to define strategies tailored to each unique and vulnerable population, including the elderly, non-English speakers, and those with lower socioeconomic status. Promise and perils abound.

Katherine E. Fero, Jonathan Bergman, David Geffen
School of Medicine at UCLA; Los Angeles County
Department of Health Services; Veterans Health Affairs
Greater Los Angeles

References

1. McKibben MJ, Kirby EW, Langston J, et al. Projecting the urology workforce over the next 20 years. *Urology*. 2016;1:21–26. 98.
2. Soni SM, Giboney P, Yee HF. Development and implementation of expected practices to reduce inappropriate variations in clinical practice. *JAMA*. 2016;315:2163–2164.

<https://doi.org/10.1016/j.urology.2020.05.082>
UROLOGY 144: 50–51, 2020. © 2020 Elsevier Inc.

AUTHOR REPLY



All patients in our study were previously established with and examined by a urologist. Over 80% had commercial insurance, resulting in reimbursement comparable to clinic encounters due to Michigan's favorable telehealth parity laws.^{1,2} The regulatory landscape limited which patients could be seen from their homes and how clinics were reimbursed for video visits. It is possible that new patients who have never seen a urologist, the elderly, and those whose socioeconomic status qualify them for Medicaid stand to benefit the most from reduced travel time and the convenience of performing these visits from their home or work.

However, the policies that previously provided only sub-sets of our patients with the ability to use telehealth have all

changed. COVID-19 resulted in unprecedented and rapid changes in the reimbursement and regulation of telehealth after the pandemic was declared a national emergency on March 17, 2020.³ Since then, the disproportionate impact of COVID-19 on minority populations⁴ in the United States has brought discussions about health disparities to the forefront of medical and public discourse. We find ourselves at a pivotal moment for thoughtfully designing the future of care delivery in the United States. Physicians must advocate to prevent a return to the status quo. For the coming years, we need to work within the COVID-19 reimbursement and regulatory environment to rigorously evaluate telehealth. How do new patient encounters impact access to specialty care? How do Medicare and Medicaid beneficiaries use telehealth to connect with their providers? Is the availability and use of telehealth affected by racial, ethnic, or cultural characteristics? Like much of medicine, there is no silver bullet that will meet the needs of our diverse populations. Rather we should leverage different forms of telehealth, from e-consults to telephone encounters and video visits, in order to bring specialty care to our patients. Rather than expecting them to show up at our doorsteps.

Juan J. Andino, Chad Ellimoottil, Department of
Urology, Michigan Medicine, Ann Arbor, MI, USA; Institute
for Healthcare Policy and Innovation, University of Michigan,
Ann Arbor, MI, USA

References

1. American Telemedicine Association. *2019 State of the States Report: Coverage and Reimbursement*. 2019. [https://cdn2.hubspot.net/hubfs/5096139/Files/Thought Leadership_ATA/2019 State of the States summary_final.pdf](https://cdn2.hubspot.net/hubfs/5096139/Files/Thought%20Leadership_ATA/2019%20State%20of%20the%20States%20summary_final.pdf).
2. Andino JJ, Castaneda PR, Shah PK, Ellimoottil C. The impact of video visits on measures of clinical efficiency and reimbursement. *Urol Pract*. 2020. <https://doi.org/10.1097/UPJ.000000000000149>.
3. Centers for Medicare & Medicaid Services. *Medicare Telemedicine Health Care Provider Fact Sheet*. 2020. <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>. Accessed April 7, 2020.
4. Webb Hooper M, Nápoles AM, Pérez-Stable EJ. COVID-19 and racial/ethnic disparities. *JAMA*. 2020;67:166–175. <https://doi.org/10.1001/jama.2020.8598>.

<https://doi.org/10.1016/j.urology.2020.05.083>
UROLOGY 144: 51, 2020. © 2020 Elsevier Inc.