

# An Urgent Need for Guidelines for Telemedicine Use

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As the adoption of telemedicine use exploded since the onset of the pandemic in 2020,<sup>1–4</sup> many patients, providers, and practices had to suddenly adapt and learn how to use this new technology. Many have learned *how* to navigate this technology, though disparities in quality and access are becoming increasingly apparent. But there remains a dearth of guidelines about *when* the use of telemedicine is appropriate. As a result, decisions about whether to have a telemedicine or an in-person visit are now often driven primarily by patient preference or convenience, but telemedicine may be less appropriate in certain occasions or for particular diagnoses.

To help patients, providers and practices most appropriately determine when to use telemedicine, we urge for the formation of an expert panel consisting of providers, patients, advocates, practice managers, payers, and researchers to create consensus guidelines. These guidelines should be based on evidence where available, and expert consensus where evidence is not yet robust. We expect that guidelines will change and should be updated as evidence evolves and suggest the following components to be included in guideline considerations:

1. Symptoms and diagnoses—A comprehensive list of symptoms or findings that would exclude consideration of telemedicine, and others that are adequately or even preferentially managed by telemedicine, would help patients and providers make the determination about whether telemedicine is appropriate. Certain symptoms and conditions require an in-person physical exam, lab tests, imaging, or procedures. Conversely, many practices have successfully used telemedicine to manage patients with potential COVID symptoms, for chronic medication management, and for mental health

services, not only to afford convenience and reduce the need for travel, but also to protect others from infection.

2. Establishing care—Our own data, as well as that of others,<sup>5,6</sup> suggest that it is much harder to have a telemedicine appointment with an unfamiliar physician than with a familiar one, often due to difficulty with establishing rapport via telemedicine. Improving teaching and training of clinical care delivery via telemedicine may help improve rapport building skills. Telemedicine use guidelines could also potentially recommend an in-person encounter for establishing care followed by telemedicine visits when appropriate.
3. Time between encounters—Even for types of visits when telemedicine may be appropriate, it might be unwise to allow too long a period to pass between in-person encounters. Guidelines should also take into account when the most recent in-person visit occurred.
4. Social determinants—Guidelines should take into account the patient's access to telecommunications infrastructure, access to devices for home monitoring, such as blood pressure monitors, glucometers, and scales, and patient digital literacy. For example, telemedicine should not be recommended to patients without access to reliable cell or internet service or if patients cannot access or use telemedicine or monitoring devices. Conversely, telemedicine could become a more standard care modality for patients who cannot access or find it too hard to travel to medical offices, as these barriers often lead to patients receiving lower quality services.
5. Disabilities—Although telemedicine could increase access to care for individuals who have disabilities that create barriers to traveling to medical offices, it is not likely to be feasible for individuals with certain disabilities such as impaired hearing, limited fine motor dexterity, or cognitive impairment. However, for these individuals, guidelines could recommend incorporating an intermediary or caregiver who could assist with the telemedicine visit.
6. Limited English proficiency—Guidelines should advocate for how interpreter services should be used during

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telemedicine visits, recognizing that sometimes the additional logistics required to engage interpreters may present barriers for either/both patient or provider.

7. Technological comfort and skills—Telemedicine use guidelines should also take into account patient preference. Telemedicine probably should not be recommended for patients who have lower digital literacy (e.g., due to limited experiences with technological devices). Alternately, guidelines could address the training and support issues needed for these patients to try a video visit. Guidelines could indicate how medical practices should provide support to help prepare patients for and navigate telemedicine visits, whereas practices that cannot provide this support perhaps should not offer telemedicine. Finally, better assessments of patients' (and clinicians') digital literacy would be helpful.
8. Privacy concerns—Telemedicine may not be an ideal type of visit for patients who are unable to access a private or safe space in which to have their encounter. Telemedicine use guidelines should advise against inappropriate settings for patients to conduct a telemedicine visit (e.g., while driving in a car, in public spaces such a shopping mall or laundromat). More research is needed on how to maintain data security in the telemedicine setting.
9. Equity concerns—While telemedicine may help reduce disparities by providing some patients with easier access to medical care, our healthcare system should critically assess how we decide who should and should not have telemedicine visit, and how telemedicine may be creating a digital divide. Furthermore, cost of data plans and smartphones, as well as differential reimbursement of telemedicine visits, may drive widening disparities in access to care. Finally, a greater system-level structural change to address the current cross-state licensure issues could help ameliorate some significant access issues.
10. Quality assurance—Evaluation and monitoring systems should be established to determine whether telemedicine is improving or detracting from care and for which populations or health conditions is telemedicine most beneficial (or harmful).

Ideally, as these guidelines are developed, they should be made easily available for both providers and patients. For example, websites, apps, or phone lines that offer these

guidelines in the form of branching logic could help practices and providers triage patients to a telemedicine or in-person visit as well as helping patients self-triage to make more informed decisions.

The COVID-19 pandemic public health emergency forced a rapid and perhaps even disorderly adoption of telemedicine. But telemedicine is clearly here to stay, due to the benefits it offers in terms of convenience and access. Clearly, we need more research to evaluate when and how telemedicine should be used, not only including data about patient or clinician satisfaction with telemedicine but also assessing patient health outcomes and financial impacts. Barring current data regarding appropriate use, it is critical that funding agencies or professional societies take leadership now to help patients and providers make better decisions about when to use telemedicine.

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**Declarations:**

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## REFERENCES

1. **Samson L, Tarazi W, Turrini G, Sheingold S.** Medicare beneficiaries' use of telehealth services in 2020 – trends by beneficiary characteristics and location (issue brief no. HP-2021-27). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. December, 2021.
2. **Bestsenny O, Gilbert G, Harris A, Rost J.** Telehealth: a quarter-trillion-dollar post-COVID-19 reality? 2021. <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality>. Accessed 30 June 2022.
3. **Mehrotra A, Chernew M, Linetsky D, Hatch H, Cutler D, Schneider E.** The impact of COVID-19 on outpatient visits in 2020: visits remained stable, despite a late surge in cases (Commonwealth Fund, Feb. 2021). <https://doi.org/10.26099/bvfh-e411>.
4. **Mehrotra A, Ray K, Brockmeyer DM, Barnett ML, Bender JA.** Rapidly converting to “virtual practices”: outpatient care in the era of COVID-19. *Catalyst non-issue content.* 2020;1(2).
5. **Gordon HS, Solanki P, Bokhour BG, Gopal RK.** “I’m not feeling like I’m part of the conversation” patients’ perspectives on communicating in clinical video telehealth visits. *J Gen Intern Med.* 2020;35(6):1751-1758.
6. **Heyck Lee S, Ramondino S, Gallo K, Moist LM.** A quantitative and qualitative study on patient and physician perceptions of nephrology telephone consultation during COVID-19. *Can J Kidney Health Dis.* 2022;9:20543581211066720.

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