

Neurology

DOI: 10.1212/WNL.0000000000009494

COVID-19 is catalyzing the adoption of teleneurology

Authors: Brad C. Klein, MD, MBA; Neil A. Busis, MD

Affiliations:

Brad C. Klein, Abington Hospital, Department of Neurology, Thomas Jefferson University

Neil A. Busis, NYU Langone Health, Department of Neurology

Title character count: 52

Number of references: 14

Number of print tables: 0

Number of figures: 0

Word count abstract: N/A

Word count paper: 1022

Supplemental Data: N/A

Corresponding Author:

Brad C. Klein, MD, MBA

Abington Hospital, Department of Neurology

Thomas Jefferson University

102 Providence Dr.

Richboro, PA 18954

Tel: 484-222-1056

bradcklein@gmail.com

Brad C. Klein, MD, MBA (bradcklein@gmail.com)

Neil A. Busis nab@neuroguide.com (Neurology author account), Neil.Busis@nyulangone.org

Search Terms: (COVID-19, coronavirus, telemedicine, teleneurology, telehealth)

Study Funding:

No targeted funding reported

Disclosure:

B. Klein has received honoraria for speaking at American Academy of Neurology courses, serves on the speaker's bureau of Allergan, Amgen, Biohaven, Eli Lilly, Teva, US WorldMeds, and West Lundbeck. He has served as consultant for Allergan, Amgen, Promius, and Biohaven. He has received commercial research support from Alder, Allergan, and Eli Lilly. Dr. Klein has equity interest in Abington Neurological Associates, Ltd. and AppsByDocs, LLC, makers of p-cog. Dr. Klein is a member of the American Academy of Neurology Board of Directors.

N. Busis receives honoraria for speaking at American Academy of Neurology courses and for serving as Alternate CPT Advisor for American Academy of Neurology and is a former member of the American Academy of Neurology Board of Directors.

The novel coronavirus, COVID-19, changed the world within a matter of weeks. The primary action to constrain the spread of the virus is social isolation. Given this public health principle, and the shortage of personal protective equipment during the global pandemic, all health care stakeholders need to reconsider the indications for face-to-face health care encounters in providing patient care. Which encounters are imperative and which ones can be switched to non-face-to-face care? What changes in laws, regulations, payment policies and workflow are needed to enable this transition? (1,2,3)

Remote or non-face-to-face care models, in which the patient is geographically separated from the physician or other qualified health care professional, are enabled by communication-based technologies. They have existed for decades, but widespread implementation has been constrained by laws, regulations and policies at national, state, and organizational levels. Federal and commercial payers have not covered many of these services. Until recent years, the evidence for their effectiveness compared to traditional care models has been sparse. (4,5)

The general terms for many non-face-to-face care services are “telehealth” or “telemedicine,” from the Greek word for “far.” Many think of telemedicine as consisting exclusively of real time interactive or synchronous audio and video communications between a patient and a provider. There is a wide spectrum of other telehealth services including telephone communication; asynchronous digital services including

email, text messages, remote monitoring of patient data such as images or physiological parameters; and provider-to-provider communications. (6)

Many evaluation and management services can be done remotely. The first use of telemedicine in neurology was in stroke evaluation at hospitals where neurologists were not onsite. Evidence showed noninferiority of telestroke evaluations compared to face-to-face encounters. Today, “teleneurology is neurology” in a wide variety of clinical settings. (7)

The COVID-19 crisis stimulated policy makers, regulators and payers to encourage expanded use of remote health care. Policy restrictions were loosened or lifted. Many telehealth services are now reimbursed with few associated administrative burdens. Neurologists, regardless of setting, should consider incorporating telehealth into their practice. We need to rapidly understand current local and federal laws, regulations, coding and reimbursement options and stay informed since laws, regulations, and reimbursements may change by the day. For example, providers may now be reimbursed for Medicare patients using traditional E/M coding for telehealth visits regardless of patient location, including the patient’s home. (8) Per CMS, providers licensed in any US state may now practice telehealth in other states without additional licensing, if state laws allow this. (9,10)

Providers must remain vigilant in order to understand their state’s laws and each individual payer’s policies including use of modifiers, eligible patient populations, etc. Payments by payers within a state vary based on existing parity laws (10), temporary mandates during the emergency period of COVID-19, contract negotiations, and individual payer policy decisions. Further, these rules and regulations may change frequently requiring practices to re-review their contracted payer websites, contacting the payers directly, and/or reaching out to their state medical or neurological societies. The American Academy of Neurology has developed online resources on how to provide telemedicine and remote care services (11) and telehealth coding (12). The information will be regularly updated.

While COVID-19 did not alter telehealth-related Current Procedural Terminology (CPT), new non-face-to-face service codes were added in 2020. (12) Practices can benefit from refocusing efforts and fully understanding the wide spectrum of telehealth codes. Providers may be reimbursed not only for traditional telemedicine, but evaluation and management services based on online work, interprofessional consults, or telephone encounters. (6, 12) However, practices must diligently review each contracted payer's policies to determine applicable payments. Developing a telehealth-based fee schedule to understand coding and reimbursement implications across payers may help administration as well as providers.

Workflow and staffing functions need to adapt to telehealth services as well. Staff needs to support scheduling. IT needs to integrate electronic medical records with telehealth applications if practical, and ensure providers and patients can connect with one another via the telehealth platform. Billing, prior authorizations, managerial oversight, and additional clinical concerns such as prescribing need to be addressed. Depending on size of one's organization and staffing capabilities, there may be value in creating rotating teams to manage clinic functions in the office or via telehealth. Student and resident education must also be reconfigured to consider their roles whereby they may still "see" patients via telehealth supervised by the attending to discuss best clinical management.

Providers, administrators, hospitals, and networks will benefit from developing models in telehealth to project the economic impact on their practices and institutions. Depending on the organization size and structure, they may need access to cash and consider overhead reductions to keep their doors open if reserves dwindle due to diminished reimbursements. Consideration should also include small business loans, lines of credit, or other options. Department leadership should be ready for conversations with their hospital or enterprise leadership about projections and ramifications. A sensitivity analyses should consider the impact of an ongoing crisis that may last weeks to months.

In parallel, practices should begin considering what a “post-COVID-19” world may look like. The impact of telemedicine in practices is unlikely to recede as this changing paradigm will leave an indelible imprint on new and valued opportunities of care between providers and patients. As practices build or enhance their telemedicine capabilities, they may benefit from ensuring their model is built on a strong, reliable infrastructure, with the ability to scale, and become embedded within normal operations after the crisis resolves. (13)

Over time, leadership will also want to understand each provider’s strengths and weaknesses associated with telehealth for ongoing utilization. Telemedicine is a specific audiovisual communications technology, requiring authentic engagement and rapport, provider and patient placement, room staging, nonverbal communication strategies, appropriate documentation, and time management. (14) Not every neurologist may be comfortable with performing a high volume of telemedicine services due to lack of social interaction with colleagues.

The global pandemic will have a lasting effect on society. If there are any positive consequences to be considered, they could include a stronger sense of community, as well as ongoing dissemination and implementation of telehealth services that improve population health, patient care, and lower costs.

References:

1. Hollander JE, Carr BG. Virtually Perfect? Telemedicine for Covid-19. *N Engl J Med*. 2020 Mar 11. [Epub ahead of print]
2. Lurie N, Carr BG. The role of telehealth in the medical response to disasters. *JAMA Intern Med* 2018;178:745-746.
3. American Telemedicine Association. COVID-19 (Coronavirus) News, Information & Resources. <https://info.americantelemed.org/covid-19-news-resources>. Last accessed March 24, 2020.
4. Wechsler LR. Advantages and limitations of teleneurology. *JAMA Neurol*. 2015;72:349-54.
5. Hatcher-Martin JM, Adams JL, Anderson ER, Bove R, Burrus TM, Chehrena M, Dolan O'Brien M, Eliashiv DS, Erten-Lyons D, Giesser BS, Moo LR, Narayanaswami P, Rossi MA, Soni M, Tariq N, Tsao JW, Vargas BB, Vota SA, Wessels SR, Planalp H, Govindarajan R. Telemedicine in neurology: Telemedicine Work Group of the American Academy of Neurology update. *Neurology*. 2020;94:30-38.
6. American Medical Association. CPT 2020 Professional Edition.
7. Guzik AK, Switzer JA. Teleneurology is neurology. *Neurology*. 2020;94:16-17.
8. HHS Issues Section 1135 Waiver, and CMS Issues Blanket Waivers of Health Care Laws, in Response to Coronavirus (COVID-19) Emergency. <https://www.natlawreview.com/article/hhs-issues-section-1135-waiver-and-cms-issues-blanket-waivers-health-care-laws> Last accessed on March 21, 2020.
9. Center for Connected Health Policy. Telehealth Coverage Policies in the Time Of COVID-19. <https://www.cchpca.org/resources/covid-19-telehealth-coverage-policies>. Last accessed on March 21, 2020.

10. Lactman NM, Acosta JN, Levine SJ. 50-State survey of telehealth commercial payer statutes. Foley.com/Telemedicine, December 2019. <https://www.foley.com/-/media/files/insights/health-care-law-today/19mc21486-50state-survey-of-telehealth-commercial.pdf>. Last accessed on March 21, 2020.
11. American Academy of Neurology. AAN Telemedicine and Remote Care website: <https://www.aan.com/telehealth>. Last accessed on March 21, 2020.
12. American Academy of Neurology. Procedure Coding for Telemedicine Visits. <https://www.aan.com/siteassets/home-page/tools-and-resources/practicing-neurologist--administrators/telemedicine-and-remote-care/20-telemedicine-cpt-codes-and-descriptors.pdf> Last accessed on March 21, 2020.
13. Duffy S, Lee TH. In-person health care as option B. N Engl J Med 2018;378:104-106.
14. National Consortium of Telehealth Resource Centers. NCTRC Webinar – Telemedicine: How to do it Right! April 2019. https://www.telehealthresourcecenter.org/events/category/webinars/list/?tribe_event_display=past&tribe_paged=2: the future of neurological care. Last accessed March 25, 2020.

Neurology[®]

COVID-19 is catalyzing the adoption of teleneurology

Brad C. Klein and Neil A. Busis

Neurology published online April 1, 2020

DOI 10.1212/WNL.0000000000009494

This information is current as of April 1, 2020

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/early/2020/03/31/WNL.0000000000009494.full
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): COVID-19 http://n.neurology.org/cgi/collection/covid_19
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.neurology.org/about/about_the_journal#permissions
Reprints	Information about ordering reprints can be found online: http://n.neurology.org/subscribers/advertise

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2020 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

