Teleneurology

COVID-19: A tele-all exposé.

Telehealth is not a new concept. An article in the *Lancet* published in 1879, suggested the possibility to reduce unnecessary office visits by using a telephone. A telehealth implementation took place in the late 1950’s when a closed-circuit television link was established between the Nebraska Psychiatric Institute and Norfolk State Hospital for psychiatric consultations.¹ Neurology, too, is no stranger to telehealth. As stroke care evolved at the end of the 20th century, it became clear that the rapidly expanding number of stroke centers would not keep up with optimal stroke care needs. The mantra *time is brain* grew in volume, leading to the birth of telestroke services and dramatically improving access to care and outcomes.

In similar fashion, neurologists are rising to the challenges of the COVID-19 pandemic, incorporating teleneurology into daily clinical practice. In this issue, we share some of ways various neurologic subspecialties are adapting the nuances of their practice to teleneurology. We begin with *Teleneurology for Primary Headache Disorders* by J Robblee, AJ Starling, RB Halker Singh, and N Riggins, who also provide an excellent overview of the teleneurologic examination. Next, KE Lai, DD Mackay, and MW Ko discuss *Teleneuro-ophthalmology* and present 2 cases using video technology. Then, C Zhao, C Flaherty, P Eslinger, and K Sathian skillfully review approaches for both the neurologist and neuropsychologist in *Teleneurology for Cognitive Care*. Moving to the periphery, *Teleneurology for Neuromuscular Conditions* by V Baute Penny, RG Mehta, and F Sadeghifar, addresses disease-specific strategies and tools to employ in virtual visits. Next, C Smyth, D Roberts, and K Monaghan offer an international perspective on *Poststroke Telerehabilitation*. To conclude our telehealth content, B Klein and R Villanueva provide a practical approach to *Coding and Billing for Teleneurology*.

With the shortage of personal protective equipment (PPE) during this pandemic, hospitalist neurologists are under unique pressure to assess inpatients, both with and without COVID-19, safely and effectively. Although teleneurology could facilitate safe remote neurologic assessment of inpatients with COVID-19, this has not been fully embraced, despite widespread use for critically ill individuals in stroke care.

From our perspective, teleneurology offers both welcome answers and concerning questions. For decades, physicians have provided uncompensated services via electronic messages and phone calls both to patients and in consultation with other members of the care team. Although many video and telephone services are being reimbursed during the pandemic, will this continue after COVID-19? If it does continue, will the reimbursement for face-to-face appointments, procedures, and other services drop—in order to pay for the exponentially growing number of charges that will be submitted for virtual care? Will rising costs of healthcare ultimately trigger Medicare for all with or without an option to buy private insurance?

With more physicians providing virtual care, will the demand for physical office space and staff shrink? Can a practice with 4 neurologists that has been restricted by office space become an 8-neurologist practice with a split schedule of providing teleneurology from home half of the days of the week? Will there be a greater push for interstate or even national licensure to allow patient care across state lines? Will this lead to more uniform practice requirements including the easing of recertification requirements (eg, allowing physicians to choose between the American Board of Psychiatry and Neurology [ABPN] Maintenance of Certification [MOC] programs or continuing medical education [CME]-based recertification with the National Board of Physicians and Surgeons [NBPAS])? As with the introduction of the electronic health record (EHR), will the rise of telemedicine be so disruptive that it discourages continued clinical practice by physicians nearing retirement? Or, will it paradoxically encourage continued clinical practice beyond the traditional retirement age?

We live in an extraordinary time, the likes of which we have not seen in more than a century. We are confronted with portentous challenges in our delivery of neurologic care, never mind our entire way of life. We have no choice but to adapt. As authors and editors of *Practical Neurology*, we are committed, in our small way, to facilitate this adaptation. As always, we appreciate your attention and welcome your feedback.

¹ https://www.ncbi.nlm.nih.gov/books/NBK207141/

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