

Editorial

Implementation of Telemedicine for Urgent and Ongoing Healthcare for Patients with Parkinson's Disease During the COVID-19 Pandemic: New Expectations for the Future

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Due to the COVID-19 pandemic, many countries have taken drastic measures to slow down infection rates. These include physical and social distancing, and in some countries, a lock-down of non-essential business and marked restrictions on social and economic life [1]. These measures, while necessary to contain the pandemic, do come with particular concerns around the increased vulnerability of the many patients living with one or more chronic diseases, including Parkinson's disease (PD) and other movement disorders [1]. Thus far, coronaviruses have not been linked to specific long-term neurological sequelae on patients with PD [2]. However, recent literature discusses the possibility of an increased risk for cerebrovascular disease due to the severe inflammation

associated with COVID-19 [3]. In addition, recent studies indicate that alpha-synuclein participates in the innate immune response to any viral infection, and the intriguing observation of anosmia associated with COVID-19, a common feature of prodromic PD, might just represent a coincidence, but warrant further studies [2, 4, 5].

The earliest healthcare change during this time of crisis has been to limit access to clinics and neurology wards to preserve fragile PD and other movement disorder patients from becoming infected. In some regions, the shortage of medical staff has forced movement disorders neurologists to provide care for COVID-19 patients instead [6]. Hence many patients with PD and other movement disorders are likely to benefit from restored access to subspecialty care via telemedicine, whether this is videoconferencing or simple telephone consultations. Also, even after the immediate threats of the current COVID-19 outbreak have been brought under control, we will likely be

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49 facing a need for continued restrictions on public and
50 social life for months or even years to come, until a
51 vaccine is found.

52 Implementation of telemedicine for the delivery
53 of urgent and ongoing healthcare has rapidly scaled
54 upwards [1]. Many neurologists and other health
55 professionals are currently using a variety of differ-
56 ent telemedicine healthcare tools at their disposal
57 to continue delivering patient care. Telemedicine
58 tools include simple phone calls, use of e-mails or
59 text messages, and video visits. Telemedicine can,
60 therefore, be used for routine follow-up, urgent vis-
61 its, new subspecialty consultations, research visits,
62 psychotherapy, genetic counseling, social services,
63 rehabilitation, and education. Telemedicine is not
64 superior to the quality of care delivered with regular
65 in-person visits, but it is associated with comparable
66 outcomes, and offers greater efficiency and service
67 for patients. The merits and benefits of telemedicine
68 are supported by a small but growing body of evi-
69 dence [7–10]. However, telemedicine has yet to be
70 established universally for virtual management of
71 device aided therapies in PD and other movement
72 disorders, which will require the additional techno-
73 logical implementation of a secure remote digital
74 interface within deep brain stimulation and infusion
75 pump devices [11, 12].

76 In order to assist movement disorders neurologists
77 worldwide, the Movement Disorders Society (MDS)
78 Telemedicine Study Group has created a “step-by-
79 step” guide [13], including specific requirements
80 for reimbursement and regulation, incorporating
81 the latest information available in several coun-
82 tries and global regions. The Telemedicine Study
83 Group have posted an educational webinar to reflect
84 recent telemedicine changes related to the unfolding
85 COVID-19 pandemic, and how to set up a success-
86 ful Movement Disorders telemedicine practice [14].
87 In addition, the Telemedicine Study Group also has
88 developed a network of regional experts covering
89 the globe to continue to provide updated informa-
90 tion as telemedicine guidelines continue to evolve.
91 In this regard, a web form to post questions is avail-
92 able on the MDS website [15]. Continuously updated
93 regulatory information and guidelines, and a robust
94 Q&A section addressing all relevant questions posted
95 by MDS members [16]. We hope to hear about the
96 hands-on experience with telemedicine from many
97 colleagues in the field, as this will help to further
98 shape optimal delivery of telemedicine services for
99 patients, and holds great promise of becoming a rou-
100 tine part of working in the future.

TELEMEDICINE STUDY GROUP

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CONFLICT OF INTEREST

Prof. Bloem currently serves as co-Editor in Chief
for the Journal of Parkinson’s disease, serves on the
editorial of Practical Neurology and Digital Biomark-
ers, has received honoraria from serving on the
scientific advisory board for Abbvie, Biogen and
UCB, has received fees for speaking at conferences
from AbbVie, Zambon, Roche, GE Healthcare and
Bial, and has received research support from the
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Horizon 2020 and the Parkinson Vereniging.

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report.

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