



**VA** | U.S. Department  
of Veterans Affairs

**NATIONAL VA PARKINSON'S DISEASE  
CONSORTIUM**  
*Education · Collaboration · Advocacy*

# **THE TRANSMITTER**

*July 2019*

## **Article Reviews**

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### **Virtual Visits for Parkinson's Disease: A Multicenter Noncontrolled Cohort**

Telehealth, or the use of digital communications to access health care remotely, is a field that is growing rapidly. Telehealth has played a significant role in acute neurological care and is increasingly becoming standard of care. For example, millions of people today have access to acute stroke care via telehealth, and this in past would not have been possible because of where they lived. However, application of telehealth to chronic neurological conditions has been uncommon. In Parkinson's disease (PD), 40% of Medicare beneficiaries with PD do not see a neurologist soon after diagnosis, leading to increased risks of adverse health consequences, loss of independence and even death. Korn and colleagues describe the first large, multicenter, noncontrolled cohort providing telehealth specialty care directly for PD patients and assess the feasibility and value of such an approach. University of Rochester, University of California San Francisco, and University of Florida participated as the centers doing telehealth visits with patients residing in multiple states (California, Delaware, Florida, Maryland, New York).

A total of 277 participants from 5 states were enrolled in the study, and 258 participants completed virtual visits with 14 different physicians. Total of 91% of visits were completed as scheduled. No improvement in quality of life (measured by Parkinson's Disease Questionnaire-39) was observed at 6 months. The average amount of time that physicians spent with patients during each virtual visit was 42 minutes, which for patients was on average 97 minutes less than an in-person visit (including traveling and waiting times). The most common physician recommendations were to begin an exercise program (88%), to adjust PD-specific medications (76%), and to begin rehabilitative therapies (46%). At 6 months, 200 (84%) participants reported having followed at least one recommendation made during their virtual visit and a majority of patients (56%) felt that the recommendations provided during the visit improved their health and PD.

Overall satisfaction with virtual visits was high among both physicians and patients (94% satisfied or very satisfied). Total of 74% of participants were interested in receiving future care via virtual visits. The authors acknowledged that the study results may not be generalizable to the broader population of individuals with PD, especially the most underserved since they may not have internet access for virtual visits. This study provides more evidence for the feasibility and value of virtual visits to deliver patient-centered care at home for patients with PD. Future efforts should be directed to make this care model increasingly available to those with PD across the country as well as those with other chronic neurologic conditions.

Korn RE et al. Virtual visits for Parkinson disease: A multicenter noncontrolled cohort. *Neurol Clin Pract.* 2017 Aug;7(4):283-295.

### **Predictors of motor complications in early Parkinson's disease: A prospective cohort study.**

Despite levodopa's status as a gold standard treatment for motor symptoms of Parkinson's disease, many patients develop substantial and potentially severe complications from therapy, namely, in the form of dyskinesias and motor fluctuations, which most commonly occur within 15 years of initiating treatment. There are proponents and opponents of the debate that delaying the use of levodopa by using other medications, such as dopamine agonists, should be strongly considered in certain patients. The key to understanding the risks and benefits of this approach is in the ability to predict which patients will develop these motor complications, and countless studies have attempted to characterize these factors.

In a recent publication by Kelly and colleagues of the Oxford Parkinson's Disease Centre, a large longitudinal prospective trial was conducted to study risk factors for developing motor complications, defined as dyskinesias or motor fluctuations. A cohort of 734 patients were recruited from neurology clinics in the UK early in their disease course and followed over 10 years. The study investigators used regression analysis to determine factors associated with the risk of developing complications.

Unsurprising findings included an association between levodopa dosage and severity of motor symptoms. Surprisingly, high levodopa doses were just as strongly predictive of motor fluctuations as they were of dyskinesias, and a favorable patient response to levodopa was also correlated to motor complications. They also found that while treatment duration was correlated to risk of motor complications, this effect was not as strong as levodopa dose and disease severity. Finally, the study was remarkable in showing a strong predictive value of anxiety and depression. While previous studies have indeed shown this correlation, it is also recognized that anxiety is a common non-motor symptom of wearing off that occurs in motor fluctuations. The study investigators looked at baseline questionnaires and scales of anxiety and depression (prior to levodopa initiation) and found that higher scores predicted both higher risk and severity of motor complications.

This study is the largest prospective trial of its kind and is noteworthy in its recognition that baseline anxiety and depression are predictive of motor complications, as well as levodopa dose and disease severity. The implication is that clinicians must carefully weigh treatment options in their patients early on in their disease course and consider coexisting risk factors, as making these decisions before the onset of complications can greatly affect motor outcomes and disability later in the disease course.

Kelly MJ, HU MT, et al. *Predictors of motor complications in early Parkinson's disease: A prospective cohort study.* *Mov Disord* 2019; doi: 10.1002/mds.27783.

### **Environment, Lifestyle, and Parkinson's disease: Implications for Prevention in the Next Decade**

Previous studies have examined potential risk factors and protective factors for Parkinson's Disease (PD); these factors include pesticide exposure, other chemical exposures, head injury, stress, physical activity, diet, smoking, and gene-environment interactions. Goldman et al. summarized the relevant observational studies published on these factors. For many years, numerous interactions have been reported, but few studies have been replicated. Two aspects making these observational studies more challenging include exposure

measurement, particularly early-life exposure, and the fact that biological interactions are far more complex than the interactions that we aim to measure epidemiologically.

The authors posit that refinements to observational studies will be key in researching risk factors for PD taking into account PD heterogeneity, complex risk factor interactions, and the state of prodromal PD. Genome-wide by environment interaction studies are starting to be utilized in studies of PD. Computational advances and large datasets will improve our analysis of complex variables. Improving population data collection, differentiating PD subtypes, establishing biomarkers of exposures, and identifying prodromal PD will improve the quality of studies. Future trials should include both self-report and wearable technology to ensure that all activity is captured. Despite the inevitable caveats of observational studies, the current evidence provides a basis for several low risk but potentially high reward recommendations to reduce the risk of PD.

Marras C et al. *Environment, Lifestyle, and Parkinson's disease: Implications for Prevention in the Next Decade. Mov Disord. 2019;34(6):801-811.*

## Committee Activities

### **Clinical Care Committee**

- **Rotation of Committee Chair:** Rotation of Committee Chair: Leadership for the clinical care committee rotates amongst the PADRECCs. The Houston PADRECC leads the committee for July/August. The committee meets via conference call the first Tuesday of the month at 12pm (EST)
- **Standardize and Optimize Clinical Care:** The committee continues to discuss latest research on PD, new treatment strategies and a variety of clinical issues to improve patient care and outcomes. It also serves to provide clinical support to the consortium network by focusing on measures to standardize clinical care across the PADRECC network. Recent agenda items have included discussions on:
  1. Clinical experience with newly introduced agents and therapies to include, inhaled levodopa and MRg - FUS for Essential tremor
  2. Continued discussions and progress towards delivering Telehealth to our veterans using Video Connect.
  3. Discussion about PADRECC functioning and administrative support structure which plays a central role in delivering optimal care to our veterans.
  4. Updates on clinical experience with the use of relatively newer medication options like, Pimavanserin, deutetrabenazine and valbenazine.
  5. Continued discussion about referrals, outcomes and target selection trends regarding deep brain stimulation surgery for PD, ET, and dystonia.
  6. Continued discussion focused on clinical experience sharing among the group regarding DUOPA™ (carbidopa/levodopa) enteral suspension for the treatment of motor fluctuations in advanced Parkinson's disease

7. Discussion about newer clinic models to provide focused treatment for non-motor symptoms of PD (Palliative Care Clinics) and to improve overall health of our patient population (Brain Wellness Clinics)
8. Strategies to minimize the impact of reduced workforce at the PADRECC, ideas to improve performance and deliver care
9. Discussion about collaborative research, including involvement in industry supported projects.

## Education Committee

- **National VA PD Newsletter:** Currently accepting articles for the **2019 VA Parkinson Report**. Articles should be on:
  - Research briefs/highlights
  - Quality Improvement and Safety Project Reports
  - Cutting edge Parkinson's disease treatment/management
  - Highlights of Parkinson's disease patient and/or caregiver programs
  - Highlights of Consortium Activities- clinical, education and/or research

Please limit articles to 1- 1.5 pages including references.. If you are interested in submitting an article for the newsletter please email Gretchen Glenn ([gretchen.glenn@va.gov](mailto:gretchen.glenn@va.gov)). Deadline for submission consideration is **August 5, 2019**

- **PADRECC/EES Movement Disorder Series:** The fourth audioconference for FY 19 was held on May 9, 2019 “**Sleep Issues in Parkinson’s Disease**” by Dr. Amie Hiller, Director of Fellowship at Northwest PADRECC, Assistant Professor Oregon Health Services University. Please see the **Dates to Remember** section below for a listing of upcoming audioconferences and mark your calendars.
- **Updating PADRECC Pocket Card:** Committee completed updating the pocket card titled: *Parkinson’s Disease Quick Reference Guide for Imitating Therapy* which can be on the National Website <https://www.parkinsons.va.gov/Consortium/PocketCard/PocketCard19.pdf>
- **PD at Home:** Monthly PD telephone education/support group conference for patients and caregivers available nationwide on the 2<sup>nd</sup> Tuesday of each month: 10am PT, 11am MT, 12p CT, 1pm ET. Monthly flyers will be emailed to all Consortium Members, please advertise to your PD patients.
- **National Website Maintenance:** The committee performs maintenance checks of the National Website to ensure information is current and up-to-date.
- **PADRECC Transmitter:** This committee continues to assemble and distribute this *e*-newsletter every other month.
- **PADRECC is now on VA PULSE-** We invite you to follow us: <https://www.vapulse.net/community/care-topics/parkinsons-disease/overview>

On this page you can view notices of upcoming Movement Disorders Series presentations, links to all recorded webinars and our 20-video VA Parkinson’s playlist on YouTube. Also available are a wealth of resources for VA Professionals and Veterans/families, research publications, informational newsletters, and more.

- **Resources available on the National Website-** *Please share with your patients*
  - **Patient Education Brochures-** <https://www.parkinsons.va.gov/patients.asp>
    - Exercise and Physical Activity

- Fall Prevention
  - PD Medications
  - Motor Symptoms
  - Non-Motor Symptoms
  - Agent Orange and Toxic Exposures and PD
- **My Parkinson's Story**-<https://www.parkinsons.va.gov/patients.asp>  
A series of short videos prepared by the VA PADRECCs addressing various aspects of Parkinson's disease.
  - **Suggested Education Essentials for Veterans with PD** <https://www.parkinsons.va.gov/patients.asp>
  - **PADRECC Support Group Listings** <https://www.parkinsons.va.gov/patients.asp>
  - **Updated Resource Request Form**-PADRECC staff and consortium members can order bulk supply of FREE educational materials from PF and APDA. Please click on the following website link and complete the *Resource Request Form* and mail or fax to address listed:  
<https://www.parkinsons.va.gov/clinicians.asp>

## **Dates to Remember**

### **September 12, 2019**

*EES/PADRECC Movement Disorders Series*

Topic: Parkinson's 101

<http://www.parkinsons.va.gov/>

### **September 22-26, 2019**

**International Parkinson and Movement Disorder Society Congress**

Nice, France

<https://www.movementdisorders.org/MDS/All-Congress-Sites.htm>