Challenges and strategies of medication adherence in Parkinson’s disease: A qualitative study

Non-adherence to medication regimens may result in people with PD needing more assistance and resources due to increased motor symptoms or side effects from medications. There is limited research on medication adherence among people with PD or effective strategies to improve medication adherence. This exploratory, descriptive qualitative study utilized semi-structured interviews to describe the challenges of medication adherence and to identify strategies used by the study participants. The study participants were 16 people with PD and 5 spouse caregivers, all self-selected from area PD support groups. The participants with PD were 11 men and 5 women, with a mean age of 68.1 years, 18 mean years of education, and all were Caucasian. Thirteen participants with PD reported that they did not take PD medications as prescribed all the time. Seven themes related to challenges and strategies of medication adherence emerged through content analysis. Challenges included poor medication responses, costs of medication, and forgetfulness. Strategies used included knowledge-seeking about medications, getting advice from family and friends, use of devices (i.e. pill boxes), and use of reminders (i.e. alarms, smartphones). The authors acknowledged that the small sample size, lack of racial and ethnic diversity, and higher education levels limited the ability to generalize the findings. However, this preliminary research demonstrated the ongoing need for education about medications and development of effective interventions for medication adherence. Areas for further research, such as the feasibility and effectiveness of using certain types of reminders, were also identified.


PMID: 25728485


Orthostatic Hypotension in Parkinson’s Disease: How Much You Fall or How low you go?

Orthostatic hypotension affects 30-60% of patients with Parkinson’s disease (PD). Orthostatic hypotension (OH) is defined as an orthostatic fall in the systolic blood pressure of 20 mmHg or a 10 mmHg fall in diastolic blood pressure. Severe orthostatic blood pressure results in a fall of 30/15 mmHg. A prospective observational study of 210 PD patients evaluated the relationship between blood pressure and symptoms of OH to identify a blood pressure target to guide management of OH. Subjects had supine and upright (tilt or active standing) BP measured and were asked about the presence of OH symptoms. Subjects with an upright MAP below 75 mmHg reported symptoms of OH. The researchers concluded that a standing BP of 75 mmHg may serve as a useful marker in deciding to initiate treatment for OH.
Vitamin D from different sources is inversely associated with Parkinson disease

Previous studies have demonstrated an association between Parkinson’s disease (PD) and lower vitamin D levels. However, it is unknown if vitamin D from different sources all contribute to this association. Vitamin D2 is derived from diet and supplements, while vitamin D3 is obtained largely through sun exposure. In this study, total vitamin D levels and separate vitamin D2 and vitamin D3 levels were measured in 478 PD patients and 431 controls. Vitamin D deficiency (total vitamin D <20ng/mL) and vitamin D insufficiency (total vitamin D <30ng/mL) were associated with an increased risk of PD while adjusting for age, sex and sampling season. Both vitamin D2 and vitamin D3 levels were inversely associated with PD. This data confirms the association between vitamin D deficiency and PD and demonstrated for the first time an association between vitamin D2 levels and PD risk, suggesting that dietary intake, and not just sun exposure, may play a role in vitamin D deficiency in PD.


Committee Activities

Clinical Care Committee

- **Rotation of Committee Chair:** Leadership for the clinical care committee rotates amongst the PADRECCs. The Philadelphia PADRECC leads the committee for May/June. Committee meets via conference call the first Tuesday of the month at 12pm (EST)

- **Standardize and Optimize Clinical Care:** Continue to discuss a variety of clinical issues to learn from each other’s experiences, establish usage patterns of existing and emerging therapies, and discuss ways to enhance overall patient care. The committee continues to provide clinical support to the Consortium network, and work on measures to standardize clinical care across the PADRECC network. Recent agenda items have included ongoing discussion on:
  - Therapy topics: The introduction of two new Parkinson’s disease therapies, Duopa and Rytary. The committee has discussed how these new agents will be incorporated into clinical practice.
  - Duopa, the intestinal gel will be available by the Fall. The implementation and coordination with gastroenterology and/or interventional radiology (whom insert the pumps) has been reviewed. Feedback to the National Pharmacy Benefits and Management Office has been provided to guide development VA protocols.
• Rytary, an extended release carbidopa/levodopa formulation will be available shortly on a national level. Individual PADRECCs have approached their local Pharmacy and Therapeutics Committees for approval.

• Use of Clinical Video Telehealth for movement disorders and home monitoring devices: Review of applications in clinical arena for subset of patients, and ways to expand access to CBOCs and remote areas where subspecialty expertise is not available.

• E-Consults are utilized by some PADRECCS; particularly for consultation regarding Restless Legs Syndrome.

• VERA funding for the catastrophically disabled veteran.

• The use of DAT scans in clinical practice: Applications and pitfalls of use. Standardization of interpretation.

• The incorporation of yoga and other exercise modalities along with meditation and breathing in the care of the PD patient and how to enhance access of these modalities to our patients.

• Multidisciplinary clinics in practice – opportunities and challenges in integration of other specialty modalities into movement disorders clinic (eg. PT/OT/psychiatry).

• **PADRECC Transmitter:** PADRECC clinicians provide reviews of recent movement disorder publications that are included in the PADRECC Transmitter.

**Education Committee**

• **PADRECC/EES Movement Disorder Series:** The 3rd audio conference for FY 15 was held on March 12th, 2015- “Military Service and Neurodegenerative Disease-Parkinson’s Disease as an Example” and the 4th audio conference was held on May 14th, 2015- “Tardive Dyskinesia.” The audio conferences are archived on the National website [www.parkinsons.va.gov](http://www.parkinsons.va.gov) under the Movement Disorder Series tab. All evaluations for CMEs are being done electronically via TMS and preregistration is required. Please see the **Dates to Remember** section below for a listing of upcoming audio conferences.
National Newsletter: Currently accepting articles for the 2015 VA Parkinson Report. The topic selection for this edition are focused on ongoing activities and research by the PADRECCs and their consortium members. If you are interested in submitting an article for the newsletter please email Linda Fincher (linda.fincher@va.gov), articles are due by June 1st, 2015.

Patient Education Video Project: The My Parkinson’s Story video series from FY 11 & 12 are now available for viewing on the National PADRECC & VA Consortium Website: http://www.parkinsons.va.gov/patients.asp and on You Tube.

Enduring Materials Project: In collaboration with EES, the committee developed an on-line TMS self-study program that offers CME credit for a 3 year period. The purpose of this program is to provide VHA healthcare professionals with a broadened medical awareness of Mood Disorders in PD. The program is NOW available on TMS: https://www.tms.va.gov/learning/user/deeplink_redirect.jsp?linkId=ITEMDETAILS&componentID=14771&componentTypeID=VA&revisionDate=1343926380000

PADRECC Transmitter: The committee continues to assemble and distribute this e-newsletter every other month.

Philadelphia PADRECC Service Area Update

Philadelphia PADRECC

Director: John Duda, MD

Telehealth and Parkinson’s Disease
Dr. Jayne Wilkinson has concluded a study evaluating the use of telehealth in treating Parkinson’s disease. Telehealth allows a patient to be seen by a provider using a video connection either to their home, or to a closer, VAMC facility. The results of the study demonstrated promising findings. Dr. Wilkinson found that telehealth visits were associated with a high level of overall patient satisfaction, and improved patient satisfaction regarding convenience and accessibility, when compared with in-person visits. The study also demonstrated that telehealth results in savings related to travel and potentially impacts how patients utilize the healthcare system, in general. Clinical outcomes remained the same as in-person visits, demonstrating that telehealth is a viable way to deliver effective care. Findings were presented at the annual American Academy of Neurology Meeting in April 2014, and will be submitted for journal publication. The study was Dr. Wilkinson’s thesis for her Masters in Clinical Epidemiology, which she received from Perelman School of Medicine in May 2015.

PADRECC Telehealth: Exciting News
The PADRECC telehealth initiatives have successfully expanded to include home quantitative assessments of patients with Parkinson’s disease. It is widely recognized in the neurology community that seeing a patient in clinic is extremely limited, as this “snapshot” of ~30 minutes or so, may not accurately reflect their overall clinical status and treatment needs.

Over the last year the Philadelphia PADRECC has worked to secure equipment and develop a clinical program that will allow monitoring of symptoms over the course of an entire day and/or multiple days. We believe this will enhance our ability to manage more difficult cases. We are also interested in how this equipment may allow us to continue to provide remote care to those veterans unable to travel to our center. We also believe it may someday provide a means to more easily include patients in interesting clinical trials and research activities.

As of this month the Philadelphia PADRECC has 4 Veterans enrolled in this program.

- **Caregivers & Parkinson’s Disease**

  Dr. Jayne Wilkinson, Gretchen Glenn, LCSW, and Eileen Hummel, RN, BSN conducted a study to examine a telephone support group that aims to help empower family caregivers to maintain their health, well-being and capacity to care. The telephone support group consisted of 8 weekly, 90 minute telephone conversations of spouse caregivers of patients with Parkinson’s disease. The support group phone calls were facilitated by a masters prepared nurse, a registered nurse and a social worker. Caregivers found this support group helpful in taking care of a loved one with PD. The results of this study were published in Geriatric Nursing:  [http://dx.doi.org/10.1016/j.gerinurse.2015.02.002](http://dx.doi.org/10.1016/j.gerinurse.2015.02.002)

- **Creativity Program for Veterans**: On April 10\textsuperscript{th}, 2015 the Philadelphia VA PADRECC hosted its first Creativity Session. The session was facilitated by a Veteran followed in the Philly PADRECC who discovered his artistic talents after being diagnosed with PD. Veterans and their care partners were invited to participate in creative activities and have fun experimenting with artistic expression. Participants also talked about the value and benefits of creativity in coping with mental and physical challenges and promoting overall well-being.

  We hope to offer this program again as it was a unique way to relax, meet new people, and explore new ideas!

### Dates to Remember

**June 14-18, 2015**

25\textsuperscript{th} Annual Movement Disorder Society International Congress

San Diego, CA

[http://www.movementdisorders.org/MDS.htm](http://www.movementdisorders.org/MDS.htm)

**September 10, 2015**
EES/PADRECC Movement Disorder Series

Topic:  Aspiration Pneumonia and Parkinson’s Disease
http://www.parkinsons.va.gov/

September 11-12, 2015

Parkinson Study Group Annual Meeting and Symposium

Fort Myers, Florida

http://www.parkinson-study-group.org/parkinson-research/parkinson-research/september-1112-2015,