

2017-09

# Can implementation of technology transform the management of Parkinson's? Lessons learnt from the Parkinson's KinetiGraph (TM) (PKG (TM)) service evaluation project

Thomas, C

<http://hdl.handle.net/10026.1/13179>

---

*All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.*

## Program

# Thirty First Annual Symposium on Etiology, Pathogenesis, and Treatment of Parkinson Disease and Other Movement Disorders

Presented by the Parkinson Study Group, Huntington  
Study Group, Dystonia Study Group, Tourette  
Syndrome Study Group, Cooperative Ataxia Group,  
and Tremor Research Group

*Sunday, September 17, 2017*  
*Sanibel Harbour*  
*Marriott, Fort Myers,*  
*Florida 8:00 a.m. to*  
*2:30 p.m.*

The symposium will consist of current issues in Parkinson disease and other movement disorders. There will be peer-reviewed platform and poster presentations designed to communicate recent research advances, including new pharmacological and non-pharmacological treatment options in the field of Parkinson disease, Huntington disease, ataxia, dystonia, Tourette's syndrome, and tremor. This program is in honor of the late *Clifford W. Shults, MD* and hosted by the PSG Executive and Symposia Committees.

### POSTER 29

#### **Can implementation of technology transform the management of Parkinson's? Lessons learnt from the Parkinson's KinetiGraph™ (PKG™) service evaluation project**

C. Thomas<sup>1</sup>, B. Mohammed<sup>1</sup>, E. Abdelgadir<sup>2</sup>, M.A Silverdale<sup>3</sup>, C. Kobylecki<sup>3</sup>, L. Osborne<sup>4</sup>, M. Smith<sup>5</sup>, A. Hulejczuk<sup>5</sup>, A.R Saha<sup>6</sup>, P.G Bain<sup>7</sup>, C. Carroll<sup>2</sup> <sup>1</sup>*Cardiff and Vale University Health Board, Cardiff, UK;* <sup>2</sup>*Plymouth Hospital NHS Trust, Plymouth, UK;* <sup>3</sup>*Greater Manchester Neurosciences Centre, Salford, UK;* <sup>4</sup>*Camborne Redruth Community, Cornwall Foundation Trust, Cornwall, UK;* <sup>5</sup>*Northamptonshire Healthcare NHS Foundation Trust, Northampton, UK;* <sup>6</sup>*Brighton and Sussex Universities Hospitals NHS Trust, West Sussex, UK;* <sup>7</sup>*Imperial College Healthcare NHS Trust, London, UK.*

**Objective:** To determine the requirements for successful implementation of the PKG™ into clinical management of Parkinson's, through a multi-center service evaluation.

**Background:** PKG™ objective measurements could play a significant role in better understanding of the fluctuating nature of Parkinson's. This could add to the information presented at specialist reviews to support decision-making.

**Methods:** In collaboration with UK Parkinson's Excellence Network and GKC, UK specialist Parkinson's services were asked to apply the technology whenever they felt it could bring value.

**Results:** To date, 214 datasheets were collected from seven services. The initially intended and the resultant clinical decision were collected for 171 patients. For 47% the resultant decision differed. Of the 171, advanced therapy was considered for 29.2% prior to measurement. For 26% this was afterwards no longer considered the next step. Similarly, advanced therapy was decided for 29.8% after measurement. For 27.5% of these this was initially not considered. 155 patients reported their experience: 78% reported a 'positive experience', 20% reported a 'neutral experience' and 2% a 'negative experience'. Patients generally felt results were confirmative of known symptoms, but improving discussion and enhancing confidence in therapy. For 214 patients, clinicians reported the scenario, had PKG not been available. This highlighted a range of interventions that may become redundant, such as patient diaries (16.8%), referrals (14.5%), earlier follow-up (13.6%), home visits (2.3%). Clinician feedback noted the need for practical issues to be managed such as training, interpretation support, receiving reports in timely manner and being able to share with colleagues and patients.

**Conclusion:** A difference in clinical decision-making for symptom control and change in the actions taken within the wider care plan was demonstrated. The device was readily accepted by patients as a valuable tool, and supported a collaborative relationship with their clinicians. Practical issues to be considered were also demonstrated.