Assessing the validity and reliability of MANAGE-PD tool – A clinician-reported tool to identify patients with Parkinson’s disease inadequately controlled on oral medications: Results from an international survey of general neurologists

Antonini A1, Odin P2,3,4, Jalundhara YJ3, Schmidt P4,5, Skalicky AM6, Kleinman L5, Zamudio J3, Onuk K3, Kukreja P3, Bao Y3, Cabilos F6, Fernandez HH7.

1 University of Padua, Padua, Italy; 2 Division of Neurology, Lund University, Skane University Hospital, Lund, Sweden; 3 AbbVie Inc., North Chicago, IL; 4 Body School of Medicine, East Carolina University, Greenville, NC; 5 Evidera, Bethesda, MD; 6 Parkinson’s Foundation, Miami, FL; 7 Center for Neurological Restoration, Cleveland Clinic, Cleveland, OH

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BACKGROUND

• A lack of clear definition together with the absence of gold-standard tools make diagnosing and treating fluctuations of MS challenging in patients with advanced Parkinson’s disease (PD).2
• Timely identification of symptoms associated with disease progression is an area for clinical practice improvement for clinicians with Parkinson’s disease (PD). Early identification of patients uncontrolled on one medication can lead to better decision making for the treatment of PD.
• Making Informal Decisions to Aid Timely Management of Parkinson’s Disease (MANAGE-PD) is a simple screening tool intended to support healthcare practitioners (HCPs) in making decisions for the timely management of PD symptoms based on the frequency and severity of the PD motor, non-motor, and functional symptoms.

• The tool (MANAGE-PD) was developed using a mixed-methods approach4 and building on a consensus of indicators identified by movement disorder specialists ( MovDis specialists).

• The interim analysis is to assess the reliability of the MANAGE-PD tool based on an international survey of general neurologists.

METHODS

A sign-based validation approach was used to evaluate the inter-rater reliability and validity of the MANAGE-PD tool.

DEVELOPMENT OF CLINICAL VIGNETTES:

• A steering committee developed vignettes (n=10) representing a wide spectrum of disease severity to represent patients who are:
  - Adequately controlled on oral therapy, OR
  - Inadequately controlled on oral therapy and considering optimization of oral therapy, OR
  - Inadequately controlled on oral therapy and along with optimization of oral therapy, evaluation for device-aided therapies is recommended.

• Abbreviations: Category 1: Asymptomatic patient not controlled on current oral therapy. Category 2: Patient is inadequately controlled on current oral therapy. Category 3: Patient is inadequately controlled on current oral therapy and along with optimization of oral therapy, evaluation for device-aided therapies is recommended.

OBJECTIVES

• To determine the accuracy of the MANAGE-PD tool based on an international survey of general neurologists.

RESULTS

• The survey is ongoing. In this interim analysis, 29% of the intended sample is based on completion of the survey on or before August 24, 2019.

• Eighty-four-egg (US) and 26 UK (21.2%) of intended UK sample (MN) tool completed the survey at time of the interim analysis. Respondents from the U.S. sample were equally distributed across the three vignettes classes (black A: 38.8%, black B: 32.3%, and black C: 30.5%).

• The PD-GN panel who completed the survey had 14 years of experience in treating PD patients and treated much fewer patients per month than MovDis specialists (black A: 3.6 patients/month). (Table 1). (Compared to MovDis specialists, GHN similar years of experience in treating PD patients, but treated much fewer patients per month than MovDis specialists)

• The tool had good agreement with “gold standard” categories for “adequate control” based on interim data.

• The results indicated high agreement for the category 1 vignettes (black A: 91.7% of respondents assigned to this category), and lower agreement for the categories 2 and 3 (Table 2).

• The MANAGE-PD tool demonstrated validation based on the MovDis specialists panel survey. The Kendall’s coefficient of concordance (W) = 0.23; weighted kappa statistic = 0.37 (Table 3).

• The Concordance Between MovDis Specialist assessment and MANAGE-PD tool scoring of the clinical vignettes was moderate (kappa statistic = 0.37).

RESULTS CONTINUED

• The concordance that slight variation to geographic region: US sample mean (W) = 0.71; compared to UK sample mean (W) = 0.59, which is not statistically significant.

• Amongst the respondents classified as GHN or i.e., i.e., no movement disorder specialists, 31.5% were incarcerated (compared to MovDis specialists gold standard) by self-reporting based on clinical judgement. However, based on self-reporting of the vignettes using the MANAGE-PD tool, 61.7% of these vignettes could be currently classified.

DISCUSSIONS

• The MANAGE-PD tool validated with MovDis specialists demonstrated acceptable reliability with the GHN (based on interim data). The variability in ratings of vignettes classified as category 2 may be due to differences in clinical practice experience and need further validation and testing.

• The tool demonstrated clinical utility based on the improved classification of the vignettes' on the tool. Further implementation and patient level data needs to be collected to understand the clinical utility.

• Timely management of the PD patients' symptoms using a standardized and validated tool may allow home care management care for both PD patients and specialized, while reducing the time a patient remains inadequately controlled on oral medications.

CONCLUSIONS

• The MANAGE-PD tool validated with MovDis specialists demonstrated acceptable reliability with the GHN (based on interim data). The variability in ratings of vignettes classified as category 2 may be due to differences in clinical practice experience and need further validation and testing.

• The tool demonstrated clinical utility based on the improved classification of the vignettes' on the tool. Further implementation and patient level data needs to be collected to understand the clinical utility.

• Timely management of the PD patients' symptoms using a standardized and validated tool may allow home care management care for both PD patients and specialized, while reducing the time a patient remains inadequately controlled on oral medications.

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