

**Introduction.** Fatigue in Parkinson's Disease (PD) remains poorly understood. The comprehension derives from and is proven by psychometric scales. The objective is to prepare a Technical Scientific Report on the performance of scales in PD.

**Methods.** Based on the Methodological Guideline for the Preparation of Technical Scientific Report, Brazil 2014, we conducted a search on MEDLINE / PubMed, Virtual Health Library (BVS) and Cochrane, and then a review and critical evaluation of the studies and the quality of the evidence.

**Results.** Nine studies were analyzed: three systematic reviews, one case-control and five cross-sectional studies. The following were evaluated: Fatigue Severity Scale (FSS), Fatigue Assessment of Chronic Illness Therapy (FACIT-F) and Parkinson's Fatigue Scale (PFS-16). In Brazil, FSS and PFS-16 were validated. The studies have methodological weaknesses and moderate, low and very low evidence. However, FSS, FACIT-F and PFS-16 show potential for assessing fatigue in PD but further studies are needed.

**Conclusions.** Consensus on fatigue are recommended for Brazilian studies comparing FSS and FACIT-F with PFS-16 and longitudinal monitoring of patients.

## PP108 Multidimensional Analysis Of Peristeen Plus Medical Device

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**Introduction.** Neurogenic bowel dysfunction occurs in people with central nervous system disease or injury and causes loss of bowel control and severe constipation. These problems involve a lot of anxiety and discomfort and can reduce the quality of life of those who suffer from them, therefore the management of symptoms is very important. Peristeen Plus is a transanal irrigation (TAI) system for bowel dysfunction management, used to empty the rectum and distal sigmoid colon, to prevent uncontrolled bowel movements or to relieve and prevent constipation.

**Methods.** A literature review was conducted. A total of 14 records were included to evaluate the benefits in terms of efficacy and safety associated with the adoption of the medical device. To assess the economic impact, two different budget impact models have been implemented. The first aimed at evaluating an incremental diffusion in a short-term time horizon (3 years) of the home distribution of the device compared to the direct and indirect distribution methods in the Italian context. The second model aimed at assessing the impact of the diffusion of the device in the clinical practice.

**Results.** Overall, most studies demonstrate improved endpoints related to the severity of fecal incontinence, constipation and intestinal disorders in patients using the device. The economic assessments conducted estimate that the increase in the Italian care setting is associated with a saving of resources in each year under analysis. The diffusion of home distribution of the device would potentially be able to offer a lower absorption of resources compared to other distribution methods. In addition to this, there is an incremental saving correlated to the degree of diffusion of Peristeen Plus.

**Conclusions.** TAI is considered a safe and more effective method than conventional treatments for reducing fecal incontinence, constipation and improving quality of life. The results of our study confirm the benefits of TAI as a second-line treatment in case of failure of conventional medical therapy in the management of the neurogenic gut.

## PP109 Efficacy And Safety Of High-Intensity Focused Ultrasound In Parkinson's Disease

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**Introduction.** Parkinson's disease (PD) is the second most common neurodegenerative disease in the world. High-intensity focused ultrasound (HIFU) is a new non-invasive therapeutic option for treating the motor symptoms of PD. HIFU is an imaging-guided procedure for therapeutic brain ablation that has been used for patients with essential tremor and neuropathic pain. It is indicated for patients older than 22 years of age who have PD that is refractory to drug treatment and are ineligible for surgery. The objective of this study was to conduct an early assessment of HIFU subthalamotomy for the treatment of motor symptoms in patients with PD.

**Methods.** HIFU was identified by the early awareness and alert system, SINTESIS- nuevas tecnologías, of the Agencia de Evaluación de Tecnologías Sanitarias at the Instituto de Salud Carlos III. Relevant literature published to October 2021 was identified by searching PubMed, EMBASE, ClinicalTrials.gov, and the Cochrane Library.

**Results.** One prospective study and one randomized controlled trial (RCT) were found that assessed the efficacy and safety of HIFU subthalamotomy for treating the motor symptoms of PD. The Movement Disorder Society-Sponsored Revision of the Unified Parkinson's Disease Rating Scale Part III (MDS-UPDRS III) was used to measure changes in symptoms (>30% change from baseline was considered clinically relevant). Both studies reported a reduction of symptoms in the intervention group. The MDS-UPDRS III score changed from 16.6 to 7.5 six months after treatment in the prospective study and from 19.9 to 9.9 four months after treatment in the RCT (a decrease of 11.6 points was observed after 12 months). The main adverse events reported were dyskinesia, speech and gait disturbances, and weakness, all of which resolved without treatment.

**Conclusions.** The results regarding the efficacy and safety of HIFU for treating the motor symptoms of PD are promising. HIFU is a non-invasive procedure that eliminates the risks associated with surgery. Although rapid diffusion of this technology is expected, further studies and economic evaluation are needed.