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Parkinson's Disease

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June 2026

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1. **Lorazepam-induced full resolution of catatonia and psychosis in Parkinson's disease with acromegaly: a case report.**

Authors: Alnafisi, Aasal;Alharbi, Ghaida;Ahmad, Rami;Radi, Suhaib;Alhubayshi, Madihah and AlGhamdi, Ahmed

Publication Date: 2026

Journal: Frontiers in Psychiatry Frontiers Research Foundation 17, pp. 1806346

Abstract: Background: Parkinson's disease (PD) is a neurodegenerative disorder characterized by the loss of dopamine-producing neurons, which results in motor issues such as tremors, stiffness, and slowness of movement. In addition to experiencing non-motor symptoms like psychosis. Catatonia, a psychomotor syndrome that is resulted from dopamine and cerebral cortical dysfunction, is considered a rare manifestation of PD patients. Acromegaly, a hormonal disorder caused by excessive growth hormone, often due to pituitary adenomas, can worsen cognitive and psychiatric symptoms. This case report demonstrates how lorazepam resulted in the full resolution of both catatonia and psychosis in a PD patient with acromegaly. Case presentation: A 78-year-old woman, known case of PD and major depressive disorder, presented to our hospital after the discontinuation of all her medications and worsening of her symptoms. She had significant neuropsychiatric symptoms that were resistant to treatment with various approaches. Her symptoms, which were consistent with catatonia and psychosis, was completely alleviated by taking lorazepam, along with restarting levodopa. Brain Magnetic Resonance Imaging (MRI) showed a pituitary macroadenoma, and hormonal studies verified acromegaly. Within six days of initiating lorazepam treatment, both catatonia and psychosis completely resolved, with an overall improvement of approximately

50%. Conclusion: This case highlights the importance of recognizing catatonia and psychosis as possible complications of PD, especially in the context of medication withdrawal and comorbid acromegaly. These neuropsychiatric symptoms were successfully resolved by lorazepam, demonstrating the medication's effectiveness in treating complex co-occurring disorders. Copyright © 2026 Alnafisi, Alharbi, Ahmad, Radi, Alhubayshi and AlGhamdi.

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2. **Cortical gyrification deficits in early-stage Parkinson's disease: the importance of bradykinesia.**

Authors: Callen A.;Colome G.;StephanOtto C. and Nunez, C.

Publication Date: 2026

Journal: Brain Communications 8(2), pp. no pagination

Abstract: Timely, accurate diagnosis of Parkinson's disease is still challenging for clinicians. It is therefore crucial to identify novel biomarkers to better characterize the early stages of the disease. Here, we assessed cross-sectional brain structure differences between healthy control (HC) and Parkinson's disease participants. We also explored potential correlations between brain structure and distinctive Parkinson's disease clinical features. We analysed T1-weighted brain images from 381 Parkinson's disease patients, primarily in the early stages, and 139 HC participants obtained from the Parkinson's Progression Markers Initiative (PPMI) database. The image processing protocol included quantification of several brain structure parameters: grey matter volume (GMV), cortical thickness, gyrification index (GI), sulcal depth and surface ratio. Regarding clinical variables, we gathered the Schwab and England score (as a measure of functional capacity), along with four motor symptom scores (bradykinesia, tremor, rigidity and postural instability) derived from the Movement Disorder Society-Unified Parkinson's Disease Rating Scale (MDS-UPDRS). We found that the left parahippocampal and lingual gyri showed less gyrification in Parkinson's disease patients compared to HC participants. In Parkinson's disease patients, we also identified GI deficits associated with bradykinesia, the main cardinal motor sign, in right parietal (mainly the supramarginal gyrus), temporal and occipital regions. In addition, higher GI and GMV in the occipital cortex were associated with greater functional capacity in Parkinson's disease. In conclusion, the gyrification deficits observed in early-stage Parkinson's disease patients point to the potential value of cortical folding as a biomarker in Parkinson's disease. Our results indicate that GI deficits are closely associated with bradykinesia and impaired functional capacity, possibly reflecting connectivity issues and/or compensatory mechanisms. Copyright © The Author(s) 2026. Published by Oxford University Press on behalf of the Guarantors of Brain.

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3. **Assessing the Importance of Variation in Diagnostic Coding Among the Three Countries in the UK Biobank.**

Authors: Clifton, Lei;Liu, Wenyu;Collister, Jennifer A.;Littlejohns, Thomas J.;Goldacre, Raphael R.;Allen, Naomi and Hunter, David J.

Publication Date: Jul ,2026

Journal: Learning Health Systems 10, pp. e70083

Abstract: Background: The UK Biobank (UKB) study has linked hospital inpatient data collected from England, Scotland, and Wales, which use different clinical coding systems to record health outcomes. Scotland records up to 6 different diagnostic codes for one inpatient episode, compared with up to 20 in England and 14 in Wales. We assessed the relationship of the variations in diagnostic coding among countries on observed disease incidence rates. Methods: We examined the number of diagnoses coded by each country, and then compared the incidence of three diseases between countries: Parkinson's disease (PD), type 2 diabetes (T2D), and dementia. We constructed Cox models for each disease, adjusting for "country." Results: Compared with England, Scotland appears to have the lowest risk (hazard ratio, HR) for all three diseases: HR [95% CI] = 0.62 [0.54, 0.72] for PD, 0.49 [0.45, 0.54] for T2D, and 0.88 [0.78, 0.99] for dementia. Conclusions: The observed incidence of these diseases and the estimated effect of "country" in Cox models are likely influenced by the clinical coding variations among countries. Researchers need to be aware of this and account for these variations in their analyses. Copyright © 2026 The Author(s). Learning Health Systems published by Wiley Periodicals LLC on behalf of University of Michigan.

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4. **Identifying Predictors of Discordance Between Balance Perception and Ability in Parkinson Disease.**

Authors: Conklin S.J.;Albrecht F.;Hooyman A.;Peterson D.;Franzen E. and Longhurst, J. K.

Publication Date: 2026

Journal: Journal of Neurologic Physical Therapy (pagination), pp. no pagination

Abstract: Background and Purpose: - Balance discordance, or malalignment between balance ability and confidence, has been linked to retrospective falls in Parkinson disease. This study aimed to identify modifiable factors related to balance discordance to determine potential targets for fall prevention interventions. Method(s): - This cross-sectional secondary analysis included 188 individuals with Parkinson disease. Balance discordance was derived from balance ability (Timed Up and Go) and balance confidence (Activities Balance Confidence Scale). Demographic factors (age, sex), disease severity (disease duration, Hoehn and Yahr Scale), balance ability (Mini-BESTest), daily physical activity via actigraphy, perceived health (EuroQol-5D Visual Analog Scale [EQ5D-VAS]), cognitive ability (Trail Making Test B, Montreal Cognitive Assessment), anxiety and depression (Hospital Anxiety and Depression Scale) were examined in relation to balance discordance. Pearson correlations explored bivariate relationships, and ridge regression with cross-validation identified unique contributors. Result(s): - Discordance was significantly related to EQ5D-VAS (r = 0.46), depression (r = -0.47), and anxiety (r = -0.37). The final model (EQ5D-VAS, sex, disease duration) accounted for 29.08% of variance, with EQ5D-VAS (beta = 0.513, P Result(s): - Discordance was significantly related to EQ5D-VAS (r = 0.46), depression (r = -0.47), and anxiety (r = -0.37). The final model (EQ5D-VAS, sex, disease duration) accounted for 29.08% of variance, with EQ5D-VAS (beta = 0.513, P Conclusion(s): - Perceived health was strongly related to discordance, suggesting shared perceptual factors may drive discordance and fall risk. Anxiety and depression were also related to discordance. Addressing these factors may facilitate improved alignment between balance ability and confidence, reduce fall risk, and

improve physical engagement and quality of life. Copyright © 2026 Academy of Neurologic Physical Therapy, APTA.

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5. **Clinical, Biological, and Functional Connectivity Profile of Patients With De Novo Parkinson Disease Who Are APOE epsilon4 Carriers.**

Authors: Conti M.;Mascioli D.;Simonetta C.;Ferrari V.;Bissacco J.;Bagetta S.;Carparelli F.;Bernardini S.;Di Giuliano F.;Marchionni E.;Pierantozzi M.;Mercuri N.B.;Schirinzi T. and Stefani, A.

Publication Date: 2026

Journal: Neurology 106(1), pp. no pagination

Abstract: Background and Objectives - Growing evidence suggests that the APOE epsilon4 allele, a genetic risk factor for Alzheimer disease (AD), influences the clinical-pathologic features of Parkinson disease (PD). APOE epsilon4 promotes brain amyloid accumulation, indicating a PD subtype more susceptible to late copathology. However, the early correlates of APOE epsilon4 carriers in PD are not known. In this study, we used a multimodal approach to define the clinical, neurochemical, and neurophysiologic profiles of APOE epsilon4 carriers in PD at onset.Methods - We conducted a single-center, cross-sectional study at Tor Vergata Hospital (Rome, Italy), enrolling newly diagnosed, drug-naive PD participants and age-matched/sex-matched healthy controls (HCs). Patients with PD were stratified by APOE genotype into epsilon4 and non-epsilon4 carriers and evaluated through a comprehensive clinical assessment and the measurement of CSF amyloid peptides and tau protein levels. Group differences in high-density EEG-based functional connectivity (FC) were analyzed using network-based statistics to identify APOE epsilon4-modulated patterns. Clinical and biomarker associations with network metrics were tested using analysis of covariance and correlation analyses.Results - The study included 66 PD participants (mean age 63.2 [10.1] years, 35% female, 52 epsilon4 noncarriers, 14 epsilon4 carriers) and 55 HCs (mean age 62.0 [15.2] years, 42% female). PD epsilon4, compared with PD non-epsilon4, demonstrated higher motor impairment, especially in bradykinesia (16.4 [7.6] vs 11.0 [5.6], p = 0.02) and gait disturbances (3.46 [2.23] vs 1.94 [1.46], p = 0.003) Movement Disorder Society-sponsored Unified Parkinson's Disease Rating Scale part III scores, and reduced CSF amyloid-beta42 (Abeta42)/amyloid-beta40 (Abeta40) ratio (0.09 [0.03] vs 0.13 [0.03], p Copyright © 2025 American Academy of Neurology

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6. **Individualised stimlation parameters in deep brain stimulation for Parkinson's disease based on disease phenotype and brain connectivity: protocol for a randomised feasibility study in a tertiary care centre (iDBS trial).**

Authors: de Ronde E.M.;Birnie E.;Rijpma A.;Arnts H.;Bartels R.H.M.A.;Esselink R. and Vinke, R. S.

Publication Date: 2026

Journal: BMJ Open 16(4), pp. no pagination

Abstract: Background: Bilateral deep brain stimulation (DBS) of the subthalamic nucleus (STN) is a well-accepted treatment for advanced Parkinson's disease (PD). Currently, programming of the DBS is done in a trial-and-error manner and it can take up to 12 months to reach optimal stimulation parameters. Technological advances in electrode design and implantable pulse generator capabilities lead to an almost infinite number of stimulation options. To explore the potential benefit of all these technological advances, a conventional trial-and-error approach is no longer sufficient. Consequently, there is a clear need for a more computational approach to programming DBS systems. This pilot study is a prospective trial to prove the feasibility of programming bilateral STN-DBS for PD in a computational fashion based on patient anatomy, electrode position and brain connectivity. In this study, we aim to assess the safety, practical feasibility and technical feasibility of a computational approach for programming newly implanted STN-DBS patients with PD. This computational approach will be based on a patient-specific DBS setting regarding sweet spots and structural connectivity of the STN. The results of this pilot study will be used to develop a computational approach for DBS programming to use in a future randomised clinical trial. Methods and analysis: The iDBS trial will be a prospective randomised feasibility study carried out at the Radboud university medical center. A total of 24patients with PD eligible for bilateral STN-DBS surgery implanted with Boston Scientific Cartesia leads will be included. Patients will be randomised to receive either (1) computational DBS programming (n=12) or (2) conventional DBS programming based on monopolar review (n=12). The primary endpoints are safety (occurrence of stimulation-induced side effects, duration of induced side effects (temporary or permanent), severity of the stimulation-induced side effects) and technical feasibility (time from surgery to DBS initiation, time from surgery to reaching optimal DBS stimulation settings) of the computational workflow. Ethics and dissemination: Ethical approval for this study has been granted by the Medical Ethical Committee region Arnhem-Nijmegen, the Netherlands (2024-17453). This study will be conducted in accordance with the Declaration of Helsinki and all applicable European and Dutch law. All participants will have to provide written informed consent. Results of the study will be submitted for publication in peer-reviewed journals and conferences. Trial registration number: The study is registered in the OMON-registry (NL87334.091.24, NL-OMON57446).

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7. **Diffusion tensor imaging analysis along the perivascular space suggests impaired glymphatic clearance in Lewy body dementia subtypes.**

Authors: Hannaway N.;Zarkali A.;Bhome R.;Dobreva I.;Kalam S.;Thomas G.E.C.;Dymerska B.;Belio I.G.;Tucker K.;Heslegrave A.;Zetterberg H. and Weil, R. S.

Publication Date: 2026

Journal: Alzheimer's Research and Therapy 18(1), pp. no pagination

Abstract: Background: Parkinson's disease dementia (PDD) and dementia with Lewy bodies

(DLB) are subtypes of Lewy body dementia (LBD) and overlap in symptoms and pathology. Glymphatic function is implicated in LBD pathophysiology due to reduced clearance of abnormal proteins. We aimed to investigate differences in diffusion tensor imaging along the perivascular space (DTI-ALPS), a candidate in vivo measure of glymphatic function, between LBD sub-types. We compared DTI-ALPS between DLB, PDD, Parkinson's with normal cognition (PD-NC), and control participants. Method(s): We recruited participants with DLB, PDD, PD-NC, and controls from neurology clinics and patient support groups. Participants were aged 50-80, clinically diagnosed. Exclusions were confounding neurological or psychiatric conditions or metal precluding MRI scanning. Participants underwent MRI brain, plasma sampling and clinical and cognitive assessments. DTI-ALPS was calculated for each participant. As DTI-ALPS can be influenced by white matter distribution, we also calculated a metric called "complexity". We tested group differences in DTI-ALPS, and associations with clinical variables across all patient groups including cognition, motor scores, sleep and fluctuations. Result(s): Fifty-one DLB (43 M, 72.7 +/- 5.5 years), 35 PDD (25 M, 69.5 +/- 7.8 years), 60 PD-NC (27 M, 63.1 +/- 7.33 years), and 26 controls (13 M, 66.7 +/- 9.28 years), were included for analysis. DTI-ALPS significantly differed between groups (F(3, 165) = 22.68, pResult(s): Fifty-one DLB (43 M, 72.7 +/- 5.5 years), 35 PDD (25 M, 69.5 +/- 7.8 years), 60 PD-NC (27 M, 63.1 +/- 7.33 years), and 26 controls (13 M, 66.7 +/- 9.28 years), were included for analysis. DTI-ALPS significantly differed between groups (F(3, 165) = 22.68, pFDRConclusion(s): We showed that DTI-ALPS, is reduced in LBD compared to PD-NC and controls; and is further reduced in DLB compared to PDD. DTI-ALPS is an easily-extracted metric from widely-used MRI scans. It has potential to be translated and automated for use in clinical pipelines, and could be used in combination with other biomarkers, to identify LBD patients with a more aggressive disease course in clinical trials and in the clinical setting.

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8. **Machine learning prediction of discharge destination in patients with Parkinson's disease; a nationwide cohort study.**

Authors: Kamo H.;Mehta T.R.;Remz M.;Burke R.M.;Brooks A.;Smiley A.;Okun M.S. and Hess, C. W.

Publication Date: 2026

Journal: Npj Parkinson's Disease 12(1) (pagination), pp. Article Number: 120. Date of Publication: 01 Dec 2026

Abstract: Risk stratification during hospitalization may support real-world discharge planning. We developed and validated machine learning models and an interpretable risk score to predict discharge destination among patients hospitalized with Parkinson's disease using a nationwide administrative claims database. Adults aged >=50 years hospitalized between November 2017 and June 2023 were included, and the first hospitalization was defined as the index admission. Discharge destination was categorized as home, facility, or in-hospital death. The dataset was randomly divided into training (80%) and testing (20%) cohorts. Random forest models were constructed for all discharge outcomes, and an elastic net logistic regression model was developed for facility discharge. Among 281,664 index admissions, 48.0% were discharged home, 44.8% to a facility, and 7.2% died in hospital. The random forest models achieved AUCs of 0.775 for home discharge, 0.774 for facility discharge, and

0.832 for mortality. The elastic net model demonstrated an AUC of 0.752. A seven-item risk score identified a high-risk group with a 73.8% facility discharge rate compared with 40.6% in the low-risk group. These models provide clinically interpretable risk stratification to support multidisciplinary discharge planning. (Figure presented.)

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9. **Correlation between autonomic dysfunction and severity of Parkinson's disease.**

Authors: Latuconsina V.C.;Akbar M.;Tammasse J.;Goysal Y.;Kaelan C. and Soraya, G. V.

Publication Date: 2026

Journal: Gazzetta Medica Italiana Archivio Per Le Scienze Mediche 185(4), pp. 589–596

Abstract: BACKGROUND: Parkinson's disease (PD) is a neurodegenerative disorder characterized by neuronal degeneration, particularly in the basal ganglia, and dopamine loss. Alongside motor symptoms, PD patients often experience autonomic dysfunction, impacting cardiovascular, gastrointestinal, urinary, and other systems, which significantly impacts disease severity and quality of life. Early detection is essential for effective management. METHOD(S): This cross-sectional study was conducted at Dr. Wahidin Sudirohusodo Hospital, Makassar, Indonesia. Autonomic dysfunction was assessed using the Scales for Outcomes in Parkinson's Disease - Autonomic Dysfunction (SCOPA-AUT) questionnaire and various Autonomic Function Tests, while PD severity was evaluated using the Parkinson's Disease Composite Scale (PDCS). Spearman's Correlation Test was used to analyze the correlation between autonomic dysfunction and PD severity. RESULT(S): Twenty PD patients were recruited. Significant correlations between autonomic dysfunction and PD severity were found. SCOPA-AUT strongly correlated with the motor component of the PDCS (P=0.6879; r=0.0008). Autonomic Function Tests, including the Cold Pressor Test (CPT) showed significant correlation with the motor component (P=0.0276; r=-0.4918). SSR correlated with the right palmar latency (P= 0.0410; r=0.5195) and right plantar amplitude (P=0.0269; r=0.6760). Left plantar amplitude correlated with the non-motor component (P=0.0341; r=-0.6514). Decreased SSR was correlated with disabilities, particularly right and left palmar amplitudes (P=0.0179; r=0.5769; P=0.0298; r=0.5467). These findings indicate that autonomic dysfunction significantly affects PD severity across multiple domains. CONCLUSION(S): This study shows that autonomic dysfunction, assessed by SCOPA-AUT and Autonomic Function Tests, is significantly correlated with PD severity. Early detection and comprehensive assessment are crucial for improving disease management and patient outcomes.

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10. **Cumulative traumatic brain injury as a predictor of Parkinson's disease with sex-related differences.**

Authors: LazaroFigueroa A.;GarzaFlores S.;ReyesPerez P.;Morales De Arcia A.;Esquivias J.;CaballeroSanchez U.;GuerraGalicia C.M.;EstradaBellmann I.;Oropeza D.;MatukPerez Y.;MorelosFigaredo E.;GandarillaMartinez N.A.;PortilloSanchez A.;SalinasBarboza K.;LopezPintor A.;AnguloArrieta A.;NolascoLopez M.;ZayasDel Moral A.;Renteria M.E.;Alcauter S., et al

Publication Date: 2026

Journal: Parkinsonism and Related Disorders 148(pagination), pp. no pagination

Abstract: Background: Traumatic brain injury (TBI) has been implicated as a potential risk factor for Parkinson's disease (PD). However, studies in underrepresented populations, including Mexicans, remain limited. Objective(s): This study examines the association between TBI and PD and whether this association changes depending on sex. Method(s): This multicenter, cross-sectional study involved 443 PD patients and 525 controls recruited from two national research cohorts. PD diagnoses adhered to UK Brain Bank criteria, and TBI history was retrospectively assessed through structured interviews. TBI was defined as a head injury with loss of consciousness or amnesia. Statistical analyses included binomial logistic regressions, adjusted odds ratios (aOR), and multivariate logistic regression model adjusted for age and sex. Result(s): No differences in TBI reported by PD patients (19.86%) compared with controls (16.76%), restricted to pre-diagnosis events (p = 0.87). However, reporting more than one TBI was significantly associated with PD, increasing the association of developing PD (aOR = 2.36; 95% CI: 1.02-5.77; p = 0.05). Furthermore, men with a history of TBI had a significantly higher association of developing PD compared with women (aOR = 3.42; 95% CI: 1.97-6.22; p Result(s): No differences in TBI reported by PD patients (19.86%) compared with controls (16.76%), restricted to pre-diagnosis events (p = 0.87). However, reporting more than one TBI was significantly associated with PD, increasing the association of developing PD (aOR = 2.36; 95% CI: 1.02-5.77; p = 0.05). Furthermore, men with a history of TBI had a significantly higher association of developing PD compared with women (aOR = 3.42; 95% CI: 1.97-6.22; p Conclusion(s): These results indicate a possible link between TBI history and PD, particularly in males and those with repeated TBIs. Although TBI emerges as a potential non-genetic risk factor, further longitudinal research is necessary to determine causality and elucidate the underlying biological mechanisms. Copyright © 2026

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11. **Carbidopa/levodopa induced severe vitamin B6 deficiency leading to symptomatic transfusion dependent microcytic Anemia.**

Authors: Lee B.K. and Gastwirt, J. P.

Publication Date: 2026

Journal: Oxford Medical Case Reports 13(4) (pagination), pp. Date of Publication: 01 Ar 2026

Abstract: Parkinson's Disease is on the rise over the coming decades with expectations that more patients will be prescribed levodopa therapy. This case presents a patient with Parkinson's Disease who presented with severe symptomatic microcytic anemia. He was transfusion dependent during his extensive work up that occurred during both inpatient hospitalization and outpatient hematology visits. This was negative for iron deficiency, infectious etiology, hemolysis, active bleeding, bone marrow failure, myelodysplasia or hematologic malignancy. However, patient was found to have a critically low vitamin B6 level. Following initiation of vitamin B6 supplementation, patient's anemia resolved and was no longer transfusion dependent.Copyright © The Author(s) 2026. Published by Oxford University Press.

12. **Factors influencing the perception of illness in patients with Parkinson's disease.**

Authors: Ma, Wen;Cui, Yafeng;Li, Yuqing;Zhou, Min;Wang, Xia and Xu, Le

Publication Date: 2026

Journal: Frontiers in Neurology [Electronic Resource] 17, pp. 1773273

Abstract: Objective: To investigate the status and factors influencing the perception of illness in patients with Parkinson's disease to provide a reference for the formulation of targeted intervention measures. Methods: The study used a cross-sectional design. Convenience sampling was used to enroll 128 patients diagnosed with Parkinson's disease in the Neurology Department of a tertiary hospital in Anhui Province, China, between February and November 2023. The investigation was conducted using a general information questionnaire, and the Chinese version of the Revised Illness Perception Questionnaire (CIPQ-R). Data were analyzed using independent samples t-tests, one-way analysis of variance, and multiple linear regression in SPSS 23.0. Results: Significant levels of negative perception were identified, with high scores for emotional representation 21.14+/-3.44 and consequence 19.45+/-3.03. Multiple linear regression analysis showed that gender, marriage, education, age, disease duration, H-Y stage influenced illness perception in the patients (pp 0.05). Conclusion: Patients with Parkinson's disease generally have a negative perception of the disease, particularly in terms of consequences and emotional representation. Women, widows, patients with low levels of education, and those with prolonged disease duration were at high risk of negative perception. These findings provide empirical evidence for the clinical identification of high-risk groups and the formulation of targeted psychological interventions, such as strengthening social support and training in coping skills.

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13. **ACKR1/Duffy-null genotype testing for clozapine: A guideline developed by the UK Centre of Excellence in Regulatory Science and Innovation in Pharmacogenomics (CERSI-PGx).**

Authors: Murtough, Stephen;Stellakis, Oriella;Mills, Daisy;Bjourson, Blanca;Chaplin, Vicky;Chauhan, Dharmisha;Chipp, Bev;Cotic, Marius;de Villiers, Jana;Dzahini, Olubanke;Elmslie, Frances;Evans, Katie;Gandhi, Shreyans;Hughes, Dyfrig A.;Jin, Huajie;Panconesi, Daniele;Skowronska, Anna;Sisodiya, Sanjay M.;Silva, Ed;Stinton, Vicky, et al

Publication Date: Jul ,2026

Journal: British Journal of Clinical Pharmacology 92(7), pp. 1977–1990

Abstract: Clozapine is licenced for treatment-resistant schizophrenia and psychosis in Parkinson's disease. In the United Kingdom, there is a mandatory requirement for absolute neutrophil count (ANC) and white blood cell count (WBC) monitoring to safeguard against agranulocytosis. Some people have naturally low ANCs without increased infection risk, caused by a homozygous T > C variant in ACKR1, commonly called the Duffy-null genotype. This condition is known as ADAN (ACKR1/DARC-associated neutropenia) and synonyms include DANC (Duffy-null associated neutrophil count) and BEN (benign ethnic neutropenia). It

is usual UK practice to lower WBC/ANC thresholds for people confirmed to have ADAN. However, ADAN often remains undetected, resulting in unnecessary discontinuation and exclusion from clozapine. This CERSI-PGx guideline provides a framework to offer ACKR1 genotype testing within the existing clinical pathway. We recommend three eligibility criteria, including pre-emptive testing for all people starting clozapine, testing for people registered in the Central Non-Rechallenge Database and reactive testing following a below-threshold blood result (defined as 'amber' or 'red'). We recommend that people with the Duffy-null genotype should be monitored using revised WBC/ANC thresholds for ADAN. Regardless of ACKR1 genotype, haematology input is required for people returning a WBC 9/L and/or ANC /L and/or ANC 9/L who present with a key clinical feature, such as sustained temperature >=38degreeC. Finally, we summarize health economic evidence, estimating in the first year of testing, 129 people with the Duffy-null genotype could be identified, resulting in savings ranging from 42 732 to 727 990. We propose ACKR1 testing as a cost-effective approach for facilitating access to clozapine, the optimal therapy for treatment-resistant schizophrenia. Copyright © 2026 The Author(s). British Journal of Clinical Pharmacology published by John Wiley & Sons Ltd on behalf of British Pharmacological Society.

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14. **Mind the Gap: Predictors of Osteoporosis Treatment Following Fragility Fracture in Parkinsonism.**

Authors: Naylor K.C.;Henderson E.J. and Tenison, E.

Publication Date: 2026

Journal: Movement Disorders Clinical Practice (pagination), pp. Date of Publication: 2026

Abstract: Background: Fracture risk is increased in Parkinson's yet this risk is often not addressed. Objective(s): Our objective was to study the extent to which osteoporosis was treated, and predictors of treatment in a large representative cohort with parkinsonism. Method(s): The clinical practice research datalink (CPRD) GOLD data contains anonymized UK primary care data. We identified fragility fractures (hip, vertebrae, wrist/distal radius, humerus, rib, pelvis and unspecified osteoporotic) amongst prevalent parkinsonism patients between 2010 and 2019, and ascertained whether bone protective medications and/or vitamin D/calcium supplements were prescribed in the pre-fracture period or in the 48-weeks post-fracture. Logistic regression was used to determine predictors of prescriptions. Result(s): There were 21,581 people with parkinsonism (mean age 74.7 +/- 9.8 years, 40% female), with a mean of 3.1 +/- 2.5 years of available data. One thousand eight hundred twenty-three experienced at least one fragility fracture. Prior to a fragility fracture 12% had a prescription for bone protective medication. This increased to 38% and 53% in the 16 and 48-weeks post-fracture, respectively. 24% already had a prescription for vitamin D/calcium which increased to 73% at 48-weeks post-fracture. Female gender (OR = 2.06 [1.69-2.51], p Result(s): There were 21,581 people with parkinsonism (mean age 74.7 +/- 9.8 years, 40% female), with a mean of 3.1 +/- 2.5 years of available data. One thousand eight hundred twenty-three experienced at least one fragility fracture. Prior to a fragility fracture 12% had a prescription for bone protective medication. This increased to 38% and 53% in the 16 and 48-weeks post-fracture, respectively. 24% already had a prescription for vitamin D/calcium which increased to 73% at 48-weeks post-fracture. Female gender (OR = 2.06 [1.69-2.51], p Result(s): There were 21,581 people with parkinsonism (mean age 74.7 +/- 9.8 years, 40% female), with a

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15. **Subcutaneous foslevodopa/foscarbidopa (LDp/CDp) in advanced Parkinson's disease (aPD): societal cost impact analysis for the UK, France, Germany, Spain, and Canada.**

Authors: Ray Chaudhuri K.;Parra J.C.;Boodhna T. and Belsey, J.

Publication Date: 2026

Journal: Journal of Medical Economics 29(1), pp. 1230–1245

Abstract: Background: The costs associated with advanced Parkinson's disease (aPD) extend beyond direct medical expenditure. As symptoms become more severe, professional and informal personal care costs are likely to exceed those incurred for medical and pharmacological treatment. The objective of this analysis is to explore the impact of treatment with subcutaneous foslevodopa/foscarbidopa (LDp/CDp) on the societal cost impact in the UK, France, Germany, Spain, and Canada. Method(s): A model was developed to aggregate expected costs incurred by a cohort with aPD over a 5-year time frame. Resource use for direct medical, non-medical, and informal care are estimated from a real world data source (Adelphi), mapped to the severity of disease as estimated by the extent of OFF-time experienced by patients. Indirect societal costs are estimated from published literature. Unit costs for each of the included countries are then applied to these resource use estimates. Symptom progression of individuals within the cohort are derived from a previously developed Markov model, which captures the differential effect on OFF-time of LDp/CDp versus best medical treatment (BMT). Result(s): Overall costs for aDP patients were shown to rise over the 5-year time horizon, as symptom progression occurred. The use of LDp/CDp incurred greater drug costs than BMT, but, by delaying exacerbation of OFF-time, this additional cost was more than offset by other savings-principally attributable to professional and informal care. Aggregated results showed a net cumulative saving of 96,273 per patient over the 5 year time horizon. Results for the five individual countries evaluated ranged from 50,297 to 135,208 per patient saving. Conclusion(s): LDp/CDp has been shown to significantly improve OFF-time burden in patients with aPD, compared with BMT. Once the costs of professional and informal

care are taken into account, the additional acquisition costs of LDp/CDp are more than offset, yielding a net societal saving.

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16. **Functional food literacy competencies of people with Parkinson's disease and multiple sclerosis: a qualitative study.**

Authors: Sauzet A.;Senoussaoui N.;Lamontagne M.N.;Lavery E.;Zidarov D.;Anglade C. and Poncet, F.

Publication Date: 2026

Journal: Disability and Rehabilitation (pagination), pp. no pagination

Abstract: Purpose: Neurodegenerative diseases can impair food literacy skills such as meal planning, cooking, and management of food resources. This study aimed to identify the specific needs of individuals with Parkinson's disease and multiple sclerosis regarding functional food literacy, to inform the development of targeted interventions that promote nutritional autonomy. Method(s): Four focus groups were conducted with 10 participants, including individuals living with a neurodegenerative disease and caregivers. Data were collected through semi-structured verbal questions and analyzed thematically using the International Classification of Functioning, Disability and Health (ICF), complemented by a functional food literacy model. Result(s): Participants reported significant challenges related to grocery shopping and cooking, mainly due to cognitive and physical fatigue. Difficulties using kitchen tools were also described, linked to reduced strength and mobility. All participants emphasized the essential role of caregiver support. Interest was expressed in assistive devices and learning strategies to facilitate food-related tasks. Some participants used compensatory strategies, such as task anticipation, sequencing, and selecting simple recipes. Conclusion(s): This study led to eight recommendations and highlighted the need for a tailored functional food literacy intervention for individuals with neurodegenerative diseases. Such an intervention could enhance nutritional autonomy, improve quality of life, and reduce caregiver burden. Copyright © 2026 Informa UK Limited, trading as Taylor & Francis Group.

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17. **Dynamic neural states underpin motor symptom severity in Parkinson's disease: a longitudinal analysis of chronic cortico-subthalamic nucleus recordings.**

Authors: Sharma, Abhinav;Liu, Tao;Abdi-Sargezeh, Bahman;Hahn, Amelia;Shcherbakova, Maria;Neumann, Wolf-Julian;Little, Simon;Starr, Philip and Oswal, Ashwini

Publication Date: Jun ,2026

Journal: EBioMedicine 128, pp. 106293

Abstract: BACKGROUND: Motor symptoms in Parkinson's disease (PD) may arise due to transient, network-wide neural dynamics that extend beyond beta-band oscillatory activity within the motor cortical-subthalamic nucleus (STN) circuit. METHODS: We applied a four-state Hidden Markov Model (HMM) to identify states of local and interregional oscillatory synchrony from chronic motor cortical and STN recordings (1046 h from 10 hemispheres) in

five patients with PD (mean age 49 years), with concurrent measurements of bradykinesia, dyskinesia and tremor quantified using wearable sensors. FINDINGS: Neural states exhibited distinct spectral and temporal features relating to symptom severity. Two states exhibited spectral signatures-particularly STN low and high gamma, STN delta/alpha, cortical beta, and cortico-STN beta coherence-that predicted worsening bradykinesia. STN beta oscillations were not consistent predictors of bradykinesia (p = 0.52), but did predict worsening tremor (p : Neural states exhibited distinct spectral and temporal features relating to symptom severity. Two states exhibited spectral signatures-particularly STN low and high gamma, STN delta/alpha, cortical beta, and cortico-STN beta coherence-that predicted worsening bradykinesia. STN beta oscillations were not consistent predictors of bradykinesia (p = 0.52), but did predict worsening tremor (p : Neural states exhibited distinct spectral and temporal features relating to symptom severity. Two states exhibited spectral signatures-particularly STN low and high gamma, STN delta/alpha, cortical beta, and cortico-STN beta coherence-that predicted worsening bradykinesia. STN beta oscillations were not consistent predictors of bradykinesia (p = 0.52), but did predict worsening tremor (p : Neural states exhibited distinct spectral and temporal features relating to symptom severity. Two states exhibited spectral signatures-particularly STN low and high gamma, STN delta/alpha, cortical beta, and cortico-STN beta coherence-that predicted worsening bradykinesia. STN beta oscillations were not consistent predictors of bradykinesia (p = 0.52), but did predict worsening tremor (p INTERPRETATION: Our findings highlight the multidimensional nature of motor impairments in PD and suggest that adaptive interventions targeting state features-rather than single frequency bands-may offer new opportunities for personalised neuromodulation. FUNDING: AO: MRC Clinician Scientist Fellowship (MR/W024810/1), Rosetrees Trust/Race Against Dementia Team award, Oxford Hospitals Charity, and the Jon Moulton Charity Trust. TL: China Scholarship Council.

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18. **Potential for distinguishing the parkinsonian subtype of multiple system atrophy from Parkinson's disease: a three-dimensional gait analysis study.**

Authors: Taximaimaiti, Reyisha;Cai, Sheng and Li, Hongyan

Publication Date: 2026

Journal: Frontiers in Aging Neuroscience 18, pp. 1797960

Abstract: Objective: Distinguishing the parkinsonian subtype of multiple system atrophy (MSA-P) from Parkinson's disease (PD) at an early stage was a challenge, and gait analysis based on wearable sensors offers a reliable method to quantify gait parameters. In this study, we used a three-dimensional gait motion capture system based on wearable sensors to identify potential gait-based biomarkers that might assist in distinguishing MSA-P from PD. Methods: Participants were enrolled in this observational study from the Department of Neurology at the People's Hospital of Xinjiang Uygur Autonomous Region from June 2024 to October 2025 and were required to complete the timed up and go (TUG) test, Cognitive Load Test, and Endogenous Beat Test according to our instructions. Multivariate analysis of covariance (MANCOVA) was used to conduct overall comparisons of gait characteristics among groups, and predictive ability was tested through 5-fold cross-validated receiver operating characteristic curves and sensitivity analysis. Results: A total of 74 PD patients, 33

MSA-P patients, and 79 healthy controls (HCs) were enrolled in this study. When PD patients and MSA-P patients exhibited similar clinical performance and drug dosage, MSA-P patients had a 4.9-year younger age of symptom onset and a duration of symptoms that was 19.4months shorter. Both PD patients and MSA-P patients exhibited reduced stride length, reduced velocity, reduced bilateral step length, anterior pelvic tilt, and broadly reduced range of motion (ROM) of the pelvis and the lower limb joints compared to HCs. The negative impact of the Cognitive Load Test on gait seemed to be far greater than that of the Endogenous Beat Test, and PD patients might be more sensitive to the Endogenous Beat Test than MSA-P patients. The ROM of hip flexion-extension in the Endogenous Beat Test demonstrated the most favorable discriminative and potential predictive capacity for distinguishing MSA-P patients from PD patients, and the results were stable across different subgroups of patients according to sensitivity analysis. Discussion: The ROM of hip flexion-extension in the Endogenous Beat Test might have a potential capacity to distinguish MSA-P patients from PD patients. Three-dimensional gait analysis based on wearable sensors might hold considerable application potential for the clinical differential diagnosis of neurodegenerative diseases.

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19. **Healthcare Service Utilisation of People Living With Non-Alzheimer's Dementia: A Systematic Review.**

Authors: Tjin A.;Thang L.L.;Sondh H.K. and Stewart, R.

Publication Date: 2026

Journal: Journal of Geriatric Psychiatry and Neurology 39(4), pp. 355–367

Abstract: Introduction: The global rise in dementia presents significant challenges for healthcare systems. While Alzheimer's disease (AD) dominates dementia care, people with non-Alzheimer's dementias (non-AD), such as dementia with Lewy bodies (DLB), frontotemporal dementia (FTD), vascular dementia (VD), and Parkinson's disease dementia (PDD), often have distinct and unmet healthcare needs. Aim(s): This systematic review aimed to summarise evidence on healthcare utilisation (HCU) patterns and factors affecting care among people living with non-AD dementias. Method(s): Following a PROSPERO-registered protocol (CRD42024568391), comprehensive searches of Embase, Ovid MEDLINE, Global Health, PsycINFO, and PubMed were conducted in February and June 2024. Peer-reviewed English-language studies reporting on HCU or its determinants in DLB, FTD, VD, or PDD were included. Reviews, case reports, grey literature, and studies without subtype-specific data were excluded. Quality was assessed using the Newcastle-Ottawa Scale. Result(s): Thirty-one studies (16 cohort; 10 cross-sectional, 4 case-description, and 1 chart review) were included. HCU varied by dementia subtype and was influenced by sociodemographic, cognitive, and clinical factors. Compared with AD, non-AD dementias had higher healthcare use and costs. PDD showed the highest inpatient, outpatient, and skilled nursing care use, driven by severe cognitive decline. DLB was linked to unplanned hospital admissions and frequent ambulance use, often due to falls and pneumonia. FTD resulted in extended hospital stays related to behavioural symptoms, while VD incurred high costs due to chronic comorbidities and long-term care needs. Conclusion(s): People with non-AD dementias have greater and distinct healthcare needs. Future research should develop standardised measures and tailored interventions to address their complex socioeconomic and clinical requirements.

20. **Long-Term Surgical Outcomes and Influential Factors of Subthalamic Nucleus Deep Brain Stimulation for Dyskinesia in Parkinson's Disease: A 3-Year Longitudinal Cohort Study.**

Authors: Wang, Shu;Xue, Tao;Ma, Ruoyu;Shi, Lin;Zhu, Guanyu;Jiang, Yin;Yang, Anchao;Meng, Fangang and Zhang, Jianguo

Publication Date: 2026

Journal: Clinical Interventions in Aging 21, pp. 600031

Abstract: Background: Subthalamic deep brain stimulation (STN-DBS) has emerged for Parkinson's disease (PD), but its long-term effects on levodopa-induced dyskinesia (LID) remain poorly understood. Objective: To assess the long-term LID outcomes and prognostic factors of STN-DBS. Methods: A single-blind longitudinal cohort study was conducted in evaluating 84 PD patients with LID (mean age 61.89 years; 46.4% female; mean disease duration 10.30 years; and mean baseline levodopa-equivalent dose 854.16 mg/day) who underwent STN-DBS at Beijing Tiantan Hospital, Capital Medical University between 2019 and 2021. Assessments at baseline, 1-year (short-term), and 3-year (long-term) regarding motor symptoms, quality of life, neuropsychological status, and cognitive function were analyzed. Primary outcomes focused on LID symptoms (Unified Dyskinesia Rating Scale [UDysRS]). Multivariable linear regression identified prognostic factors. Results: At 1-year, the UDysRS score improved significantly (74.4% reduction, PP0.001), with sustained but diminished benefits at 3-year (64.9% reduction vs baseline, PP0.001; 36.9% decline vs 1 year, P=0.012). The time and functional impact of LID also improved initially (62.5% and 64.3% reduction) but worsened over time (38.8% and 33.3% decline). Motor function and quality of life showed similar trends, while neuropsychological symptoms improved stably even after long-term follow-up; and cognitive function remained unchanged. Multivariable regression identified diphasic dyskinesia as a negative prognostic factor (short-term std. beta=-0.296; long-term std. beta=-0.239), whereas a higher levodopa-equivalent dose (short-term std. beta=0.275; long-term std. beta=0.261) and greater levodopa responsiveness (short-term std. beta=0.215; long-term std. beta=0.216) predicted better short- and long-term results. A longer disease duration correlated with worse long-term outcomes (std. beta=-0.212). Conclusion: STN-DBS was associated with significant long-term improvements in LID, although the effectiveness gradually declined. The identified prognostic factors help in patient selection and counseling.

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21. **Rotigotine and parkinsonism-hyperpyrexia syndrome.**

Authors: Watanabe S.;Hasuike A.;Morishita H.;Yagi K.;Fujiwara E.;Yamanaka D.;Kasama S.;Igeta M. and Kimura, T.

Publication Date: 2026

Journal: Clinical Parkinsonism and Related Disorders 14(pagination), pp. Article Number: 100447. Date of Publication: 01 Jan 2026

Abstract: Introduction: Parkinsonism-hyperpyrexia syndrome (PHS) is a potentially fatal

complication of Parkinson's disease (PD) often triggered by antiparkinsonian medication discontinuation or reduction. Rotigotine, a transdermal dopamine agonist, provides continuous drug delivery and can be administered even when oral administration is difficult. However, the association between rotigotine use and development of PHS remains unclear. Method(s): We retrospectively reviewed 166 episodes of emergency hospitalization for PD at Hyogo Medical University Hospital (2010-2024). After excluding 19 episodes with insufficient data, 147 were analyzed. Thirty episodes met the diagnostic criteria for PHS (PHS group), and 117 episodes did not (non-PHS group). Clinical characteristics, antiparkinsonian medications, and precipitating events during hospitalization were assessed. A multivariable logistic regression analysis was performed using age, sex, disease duration, and rotigotine administration as covariates. Result(s): The PHS group had a shorter disease duration, lower modified Hoehn and Yahr stages, and a lower levodopa equivalent dose than the non-PHS group. Poor medication compliance was the most common precipitating factor among PHS cases (n = 11, 36.7%). Rotigotine was administered in five PHS and 41 non-PHS episodes. In the multivariable analysis, age was significantly negatively associated with the development of PHS (odds ratio [OR], 0.894; 95% confidence interval [CI], 0.840-0.952; p = 0.0005). And rotigotine administration showed a tendency to suppress the development of PHS (OR, 0.353; 95% CI, 0.121-1.031; p = 0.0569). Conclusion(s): Although not statistically significant, rotigotine use tends to be associated with a lower incidence of PHS. Maintaining good medication adherence is critical for preventing PHS, and we consider that rotigotine may be a useful therapeutic option.

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22. **What factors influence the length of stay and readmission after deep brain stimulation surgery? a tertiary centre study.**

Authors: Yuen J.;Boyd E.;Miller M.;Williams A. and Ashida, R.

Publication Date: 2026

Journal: Acta Neurochirurgica 168(1) (pagination), pp. Article Number: 112. Date of Publication: 01 Dec 2026

Abstract: Purpose: Deep Brain Stimulation (DBS) is a well-established treatment for refractory movement disorders. However, there are surgical risks and it often includes in-patient hospital admission. The aim is to review key factors associated with prolonged length of stay (LoS)(defined here as > 2 nights), and readmission within six months. Method(s): We retrospectively reviewed medical records of patients who underwent DBS insertion between October 2016 and September 2024 in our tertiary centre. Patient and operative factors were reviewed. Result(s): 397 DBS procedures(388 patients) were included. Parkinson's disease (PD) patients constitute majority(73%), followed by Essential Tremor(13%). Mean LoS were 2.39 +/- 0.2 and 2.48 +/- 0.5 nights, respectively. Within PD cohort, older age and use of blood thinners were associated with increased LoS. Other factors such as gender, baseline Unified Parkinson's Disease Rating Scale-3 score, symptom duration, and operating time were not statistically significant. Readmission rate was 10.3%(41/397), with majority secondary to infection(20/41) or planned readmission(13/41). Excluding planned readmissions, average LoS during readmission was 13.4 +/- 0.6 nights, with majority readmitted > 30 days post-discharge (15/27). Within PD, readmission rate was 6.9%(19/276), with skull-mounted implant use

identified as risk factor. Conclusion(s): This study identified risk factors for prolonged hospital stay after DBS surgeries, with our surgical workflow, in a publicly-funded healthcare system. We also captured factors associated with readmission within six months, which is a much longer timeframe than most studies in literature. This provides information to facilitate prehabilitation, resource allocation, and patient counselling to optimise patient outcome and reduce treatment costs. Further studies are warranted to confirm these findings, especially with different DBS techniques and workflows.

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23. **Association between the triglyceride-glucose index and disease severity in non-diabetic Parkinson's disease patients.**

Authors: Zeng, Deyan;Luo, Min;Zhang, Baojun;Zhang, Yan;Pang, Ailan and Yang, Xinglong

Publication Date: 2026

Journal: Frontiers in Aging Neuroscience 18, pp. 1801518

Abstract: Background: The triglyceride-glucose (TyG) index is a well-established biomarker of insulin resistance (IR) in non-diabetic populations, serving as a reliable indicator of metabolic health across diverse demographic groups. However, to date, few studies have explored the association between IR-as measured by the TyG index and disease severity in non-diabetic patients with Parkinson's disease (PD). Methods: PD Patients were recruited from the Department of Neurology at The First Affiliated Hospital of Kunming Medical University between 2020 and 2025. Disease severity in Parkinson's disease (PD) was assessed using the Hoehn-Yahr (HY) staging system, where stages I-II correspond to the early phase and stages beyond II indicate intermediate-to-advanced progression. The study compared TyG index differences between these groups. Spearman correlation analysis evaluated associations between individual variables and disease severity in non-diabetic PD patients. Logistic regression analysis calculated odds ratios (ORs) with 95% confidence intervals (CIs), with additional adjustment for PD-specific confounders (disease duration, age at onset, LEDD) and nutritional/metabolic markers (UA, TC, LDL, HDL, creatinine). Restricted cubic spline (RCS) analysis further examined the relationship with disease severity. Results: A total of 458 non-diabetic patients with Parkinson's disease (PD) were enrolled. The TyG index was significantly lower in the intermediate-to-advanced stage group compared to the early-stage group (Z=-2.257, p=0.024). Furthermore, univariate and basic multivariate analysis revealed an independent negative association between the TyG index and disease severity (OR=0.610, 95% CI: 0.380-0.977, p=0.039). After adjusting for PD-specific confounders (disease duration, age at onset, LEDD), regression analysis showed a weakened association between the triglyceride glucose index and disease severity (beta=-0.445, p=0.057, OR=0.641, 95%CI: 0.406~1.013). The association between the triglyceride glucose index and Parkinson's disease severity was no longer statistically significant after further adjustment for nutritional/metabolic indicators (beta=-0.179, p=0.598, OR=0.836, 95%CI: 0.430~1.625). Conclusion: In non-diabetic PD patients, a lower TyG index was associated with greater disease severity in more advanced HY stages, but this relationship is not independent after full adjustment. Moreover, reverse causality could not be ruled out and requires validation in future prospective studies.

24. **Characteristics, Complications, and Outcomes of Critical Illness in Patients with Parkinson Disease.**

Authors: Lieberman O.J.;Douglas V.C. and Lahue, S. C.

Publication Date: 2025

Journal: Neurocritical Care 42(1), pp. 241–252

Abstract: Background: Adults with Parkinson disease (PD) are hospitalized at higher rates than age-matched controls, and these hospitalizations are associated with significant morbidity. However, little is known about the consequences of critical illness requiring intensive care unit (ICU)-level care in patients with PD. The aim of this study was to define the characteristics and outcomes of adults with PD admitted to the ICU. Method(s): We performed a retrospective nested case-control study using the Medical Information Mart for Intensive Care IV data set. Adults with PD were identified, and the index ICU admission for these subjects was matched 1:4 with index ICU admissions without a PD diagnosis based on age, sex, comorbidities, illness severity, ICU type, and need for mechanical ventilation. Primary outcomes were in-hospital mortality and discharge location. Secondary outcomes were length of stay and prespecified complications. Result(s): A total of 630 adults with PD were identified. Patients with PD were older and were more likely to be male, have more comorbidities, and have higher illness severity at presentation. A matched analysis revealed adults with PD did not have a significant difference in in-hospital mortality but were more likely to be discharged to a higher level of care. Adults with PD had longer hospital lengths of stay and increased odds of delirium, pressure ulcers, and ileus. Conclusion(s): During critical illness, patients with PD are at increased risk for longer hospital lengths of stay and complications and require a higher level of care at discharge than matched controls. These findings reveal targets for interventions to improve outcomes for patients with PD and may inform discussions about goals of care in this population. Copyright © 2024 Springer Science+Business Media, LLC, part of Springer Nature and Neurocritical Care Society.

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