

# Parkinson's Disease

  

# Current Awareness

  

# Bulletin

February 2014

**The following bulletins are also available:**

Children's Continence  
Continence  
Dementia  
End of Life Care  
Infection Control

Nutrition  
Parkinsons Disease  
Rehabilitation  
Safeguarding

**If you would like to receive these bulletins on a regular basis please contact the library.**

For any references where there is a link to the full text please use your NHS Athens username & password to access. (if you need any help with this please let us know)

If you would like any of the full references from those that do not have links please let us know & we will source them for you.

**Academy Library x4897 or [ruh-tr.library@nhs.net](mailto:ruh-tr.library@nhs.net)**

**Jason Ovens**  
**Head of Library & Knowledge Services**

**Title: Daily electromyography in females with Parkinson's disease: A potential indicator of frailty.**

**Citation:** Archives of Gerontology & Geriatrics, 01 January 2014, vol./is. 58/1(80-87), 01674943

**Author(s):** Roland, Kaitlyn P., Jones, Gareth R., Jakobi, Jennifer M.

---

**Title: Parkinson's disease: top 10 causes of sudden deterioration.**

**Citation:** British Journal of Neuroscience Nursing, 01 October 2013, vol./is. 9/5(234-239), 17470307

**Author(s):** Magennis, Brian, Corry, Margarita

**Abstract:** Sudden deterioration in Parkinson's disease is frequently encountered in clinical practice. It usually occurs over several days or weeks, and the cause is most likely related to a symptom rather than progression of the condition. It is important that the cause of the deterioration is treated and prioritised over the obvious presenting symptoms of Parkinson's. In most instances effective management of the root cause will prevent worsening of the symptoms of Parkinson's and enable patients to adopt health behaviours that help avoid recurrence. All members of the multidisciplinary team play a crucial part in identifying, managing and treating the condition. The top 10 causes of sudden deterioration in Parkinson's were identified from a review of clinical practice in a large teaching hospital in 2009; this paper outlines and explains current strategies for managing these top 10 causes.

**Full Text:**

Available from *British Journal of Neuroscience Nursing* in [Bath Academy Library](#)

---

**Title: Emerging candidate biomarkers for Parkinson's disease: a review.**

**Citation:** Aging & Disease, February 2014, vol./is. 5/1(27-34), 2152-5250;2152-5250 (2014 Feb)

**Author(s):** Saracchi E, Fermi S, Brighina L

**Abstract:** Parkinson's disease is a chronic neurodegenerative disorder leading to progressive motor impairment affecting more than 1% of the over-65 population. In spite of considerable progress in identifying the genetic and biochemical basis of PD, to date the diagnosis remains clinical and disease-modifying therapies continue to be elusive. A cornerstone in recent PD research is the investigation of biological markers that could help in identifying at-risk population or to track disease progression and response to therapies. Although none of these parameters has been validated for routine clinical practice yet, however some biochemical candidates hold great promise for application in PD patients, especially in the early stages of disease, and it is likely that in the future the diagnosis of PD will require a combination of genetic, imaging and laboratory data. In this review we discuss the most interesting biochemical markers for PD (including the "-omics" techniques), focusing on the methodological challenges in using ex vivo blood/CSF/tissue-based biomarkers and suggesting alternative strategies to overcome the difficulties that still prevent their actual use.

---

**Title: Evidence for gender differences in cognition, emotion and quality of life in Parkinson's disease?.**

**Citation:** Aging & Disease, February 2014, vol./is. 5/1(63-75), 2152-5250;2152-5250 (2014 Feb)

**Author(s):** Heller J, Dogan I, Schulz JB, Reetz K

**Abstract:** A number of gender differences have been documented in the incidence and symptomatology of the second most common age-related neurodegenerative disorder, idiopathic Parkinson's disease (PD). Overall, previous reports suggest a less frequent incidence and a more

benign phenotype in women mainly in Western populations, which is thought to be mediated by estrogens in particular in early stages of the disease. Not only motor symptoms seem to underlie gender effects, but also non-motor symptoms such as psychiatric and cognitive impairments, which can often precede motor manifestation. However, reliable results for gender differences in PD in particular of cognitive function and emotion processing, having a major impact on quality of life, are lacking. Moreover, studies investigating gender effects in PD in these areas have revealed highly heterogeneous results. The present review summarizes findings of currently available studies on gender effects on neuropsychological tests covering major cognitive domains, emotion processing as well as quality of life in patients with PD. Overall, the occurrence of cognitive impairment in PD seems to be associated with male gender, though inconsistent results were shown in cognitive screening tests. Regarding emotion recognition, men with PD were found to be less accurate than women with PD at identifying fearful expressions, whereas vice versa results appeared in healthy subjects. Lower quality of life and greater disability were reported by women compared to men with PD, which corresponds with the results in healthy subjects. Several disease-specific mediators as well as the question of a general gender and age-related effect as observed in healthy individuals are discussed. Increased knowledge on possible gender effects in PD would provide an enhanced insight in underlying pathological mechanisms, and has potential implications for the diagnosis and treatment of PD.

---

**Title: What impacts on the stress symptoms of Parkinson's carers? Results from the Parkinson's UK Members' Survey.**

**Citation:** Disability & Rehabilitation, 01 February 2014, vol./is. 36/3(199-204), 09638288

**Author(s):** Drutyte, Gerda, Forjaz, Maria João, Rodriguez-Blazquez, Carmen, Martinez-Martin, Pablo, Breen, Kieran C.

**Abstract:** Purpose: Caring for a patient with Parkinson's disease (PD) is stressful and has a significant impact on the carer's physical and mental health. This article is aimed at assessing which characteristics are most frequently associated with the stress symptoms of PD carers. Method: Data from the Parkinson's UK Members' Survey were drawn from 1881 valid self-completion surveys, filled in by carers of a patient with PD. Results: The carers, 95.6% of whom were a first-degree relative, reported an average of  $2.7 \pm 3.1$  stress-related symptoms. In multiple regression analysis, a greater number of symptoms were associated ( $p < 0.01$ ) with: the more tasks that the carer carried out ( $\beta = 0.35$ ), an increased number of carer's co-morbidities (0.22) and worsening financial status (0.16). Conclusions: It is important to consider the health of both the patient with PD as well as that of the family carer to reduce the impact of caring activity on the carer's stress.

---

**Title: Intensive Rehabilitation Increases BDNF Serum Levels in Parkinsonian Patients: A Randomized Study.**

**Citation:** Neurorehabilitation & Neural Repair, 01 February 2014, vol./is. 28/2(163-168), 15459683

**Author(s):** Frazzitta, Giuseppe, Maestri, Roberto, Ghilardi, Maria Felice, Riboldazzi, Giulio, Perini, Michele, Bertotti, Gabriella, Boveri, Natalia, Buttini, Sara, Lombino, Franco Luis, Uccellini, Davide, Turla, Marinella, Pezzoli, Gianni, Comi, Cristoforo

---

**Title: Non-motor symptoms: the core of multi-morbid Parkinson's disease.**

**Citation:** British Journal of Hospital Medicine (17508460), 01 January 2014, vol./is. 75/1(18-24), 17508460

**Author(s):** Sauerbier, Anna, Chaudhuri, K. Ray

---

**Title: Head injuries and Parkinson's disease in a case-control study.**

**Citation:** Occupational & Environmental Medicine, 01 December 2013, vol./is. 70/12(839-844), 13510711

**Author(s):** Harris, M Anne, Shen, Hui, Marion, Stephen A, Tsui, Joseph K C, Teschke, Kay

**Abstract:** BACKGROUND: Head injury is a hypothesised risk factor for Parkinson's disease, but there is a knowledge gap concerning the potential effect of injury circumstances (eg, work-related injuries) on risk. The objective of this study is to address this gap while addressing issues of recall bias and potential for reverse causation by prediagnosis symptoms. METHODS: We conducted a population based case-control study of Parkinson's disease in British Columbia, Canada (403 cases, 405 controls). Interviews queried injury history; whether injuries occurred at work, in a motor vehicle accident or during sports. Participants were also asked to report their suspicions about the causes of Parkinson's disease to provide an indicator of potential recall bias. Associations were estimated with logistic regression, adjusted for age, sex and smoking history. RESULTS: Associations were strongest for injuries involving concussion (OR: 2.08, 95% CI 1.30 to 3.33) and unconsciousness (OR: 2.64, 95% CI 1.39 to 5.03). Effects remained for injuries that occurred long before diagnosis and after adjustment for suspicion of head injury as a cause of Parkinson's disease. Injuries that occurred at work were consistently associated with stronger ORs, although small numbers meant that estimates were not statistically significant. CONCLUSIONS: This study adds to the body of literature suggesting a link between head injury and Parkinson's disease and indicates further scrutiny of workplace incurred head injuries is warranted.

**Full Text:**

Available from *Highwire Press* in [Occupational and environmental medicine](#)

---

**Title: Parkinson's Disease and Cancer: A Register-based Family Study.**

**Citation:** American Journal of Epidemiology, 01 January 2014, vol./is. 179/1(85-94), 00029262

**Author(s):** Wirdefeldt, Karin, Weibull, Caroline E., Chen, Honglei, Kamel, Freya, Lundholm, Cecilia, Fang, Fang, Ye, Weimin

---

**Title: Systematic Review of the Effectiveness of Occupational Therapy-Related Interventions for People With Parkinson's Disease.**

**Citation:** American Journal of Occupational Therapy, 01 January 2014, vol./is. 68/1(39-49), 02729490

**Author(s):** Foster, Erin R., Bedekar, Mayuri, Tickle-Degnen, Linda

**Abstract:** We describe the results of a systematic review of the literature on occupational therapy-related interventions for people with Parkinson's disease (PD). Three broad categories of intervention emerged: (1) exercise or physical activity; (2) environmental cues, stimuli, and objects; and (3) self-management and cognitive-behavioral strategies. Moderate to strong evidence exists for task-specific benefits of targeted physical activity training on motor performance, postural stability, and balance. Low to moderate evidence indicates that more complex, multimodal activity training supports improvement in functional movement activities. The evidence is moderate that the use of external supports during functional mobility or other movement activities has positive effects on motor control. In addition, moderate evidence is available that individualized interventions focused on promoting participant wellness initiatives and personal control by means of cognitive-behavioral strategies can improve targeted areas of quality of life. The implications for practice, education, and research are discussed.

**Full Text:**

Available from *Ovid* in [American Journal of Occupational Therapy](#)

Available from *ProQuest* in

---

**Title: Systematic Review of the Effects of Exercise on Activities of Daily Living in People With Alzheimer's Disease.**

**Citation:** American Journal of Occupational Therapy, 01 January 2014, vol./is. 68/1(50-56), 02729490

**Author(s):** Rao, Ashwini K., Chou, Aileen, Bursley, Brett, Smulofsky, Jaclyn, Jezequel, Joel

**Abstract:** OBJECTIVE. Alzheimer's disease (AD) results in a loss of independence in activities of daily living (ADLs), which in turn affects the quality of life of affected people and places a burden on caretakers. Limited research has examined the influence of physical training (aerobic, balance, and strength training) on ADL performance of people with AD. METHOD. Six randomized controlled trials (total of 446 participants) fit the inclusion criteria. For each study, we calculated effect sizes for primary and secondary outcomes. RESULTS. Average effect size (95% confidence interval) for exercise on the primary outcome (ADL performance) was 0.80 ( $p < .001$ ). Exercise had a moderate impact on the secondary outcome of physical function (effect size = 0.53,  $p = .004$ ). CONCLUSION. Occupational therapy intervention that includes aerobic and strengthening exercises may help improve independence in ADLs and improve physical performance in people with AD. Additional research is needed to identify specific components of intervention and optimal dosage to develop clinical guidelines.

**Full Text:**

Available from Ovid in [American Journal of Occupational Therapy](#)

Available from ProQuest in [American Journal of Occupational Therapy, The](#)

---

**Title: Driving Errors in Parkinson's Disease: Moving Closer to Predicting On-Road Outcomes.**

**Citation:** American Journal of Occupational Therapy, 01 January 2014, vol./is. 68/1(77-85), 02729490

**Author(s):** Classen, Sherrilene, Brumback, Babette, Monahan, Miriam, Malaty, Irene I., Rodriguez, Ramon L., Okun, Michael S., McFarland, Nikolaus R.

**Abstract:** Age-related medical conditions such as Parkinson's disease (PD) compromise driver fitness. Results from studies are unclear on the specific driving errors that underlie passing or failing an on-road assessment. In this study, we determined the between-group differences and quantified the on-road driving errors that predicted pass or fail on-road outcomes in 101 drivers with PD (mean age  $56.938 \pm 7.43$ ) and 138 healthy control (HC) drivers (mean age  $57.176 \pm 5.08$ ). Participants with PD had minor differences in demographics and driving habits and history but made more and different driving errors than HC participants. Drivers with PD failed the on-road test to a greater extent than HC drivers (41% vs. 9%),  $\chi^2(1) = 35.54$ ,  $HC N = 138$ ,  $PD N = 99$ ,  $p < .001$ . The driving errors predicting on-road pass or fail outcomes (95% confidence interval, Nagelkerke  $R^2 = 5.771$ ) were made in visual scanning, signaling, vehicle positioning, speeding (mainly underspeeding,  $t(61) = 7.004$ ,  $p < .001$ ), and total errors. Although it is difficult to predict on-road outcomes, this study provides a foundation for doing so.

**Full Text:**

Available from Ovid in [American Journal of Occupational Therapy](#)

Available from ProQuest in [American Journal of Occupational Therapy, The](#)

---

**Title: Developing an integrated care pathway: the process and its application to neurological conditions.**

**Citation:** British Journal of Neuroscience Nursing, 01 December 2013, vol./is. 9/6(292-300), 17470307

**Author(s):** Peel, Charlotte, Thomas, Sue, Worth, Paul

**Abstract:** There is increasing recognition that integrated services provide improved quality and cost-effective care (Ham, 2011; Ham and Curry, 2011; Goodwin et al, 2012). This article outlines the steps taken to create an integrated care pathway for people living with Parkinson's, a process that could be transferred to benefit those living with other neurological conditions. The impetus for this work followed increasing national interest in how services delivered by multiple service providers and professionals could be improved, and financial efficiency gained, while also optimising quality of care for those living with Parkinson's. The project sought both to create an effective integrated care pathway benefiting those living with a given condition within a specific area and then to understand how this process could be replicated for other areas and conditions.

**Full Text:**

Available from *British Journal of Neuroscience Nursing* in [Bath Academy Library](#)

---

**Title: Parkinson Disease in Long Term Care Facilities: A Review of the Literature.**

**Citation:** Journal of the American Medical Directors Association, 01 February 2014, vol./is. 15/2(90-94), 15258610

**Author(s):** Weerkamp, Nico J., Tissingh, Gerrit, Poels, Petra J.E., Zuidema, Syste U., Munneke, Marten, Koopmans, Raymond T.C.M., Bloem, Bastiaan R.

**Abstract:** Abstract: Parkinson disease (PD) is common in long term care (LTC) facilities. The number of institutionalized patients with PD will rise sharply in the coming decades because of 2 concurrent phenomena: aging of the population leads to an increased PD prevalence and improved quality of care has led to a prolonged survival in advanced disease stages. Only a few studies have investigated the prevalence and clinical characteristics of patients with PD in LTC facilities. Even fewer studies have addressed the treatment strategies used to support these institutionalized patients, who are mostly in advanced stages of the disease. The available evidence suggests that current management of patients with PD in LTC facilities is less than optimal. In the Netherlands, and we suspect in many other countries, there are no formal guidelines for treating patients with PD who have been admitted to a LTC facility. In this review, we describe the epidemiology, clinical characteristics, and clinical management of patients with PD in LTC settings. We also address potentially modifiable elements of care and provide several recommendations to improve the management of PD in these facilities. We conclude by suggesting a possible guide for future research in this area.

**ources Used**

The following databases are searched on a regular basis in the development of this bulletin:

Amed  
British Nursing Index  
Cinahl  
Medline

**Disclaimer**

The results of your literature search are based on the request that you made, and consist of a list of references, some with abstracts. Royal United Hospital Bath Healthcare Library will endeavour to use the best, most appropriate and most recent sources available to it, but accepts no liability for the information retrieved, which is subject to the content and accuracy of databases, and the limitations of the search process. The library assumes no liability for the interpretation or application of these results, which are not intended to provide advice or recommendations on patient care.