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DOI: 10.15225/PNN.2026.15.2.0 JNNN 0000;0(0):0–0 **Review**

Specifics of Nursing Care for Neurogeriatric Patients: Diagnostic, Clinical and Organizational Challenges

Specyfika opieki pielęgniarskiej wobec pacjentów neurogeriatrycznych: wyzwania diagnostyczne, kliniczne i organizacyjne

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Abstract

The specific nature of nursing care for neurogeriatric patients arises from the interplay between age-related changes, neurological deficits, and multimorbidity, requiring a holistic approach that integrates neurological, geriatric, and psychiatric nursing. Dynamic demographic changes and increasing life expectancy are leading to a growing number of older patients with coexisting neurological disorders. Neurogeriatrics is an interdisciplinary field of medicine combining elements of neurology, geriatrics, and psychiatry. Nursing care in this area is highly complex due to the coexistence of physiological ageing processes, multimorbidity, polypharmacy, and geriatric syndromes.

This review provides a comprehensive analysis of the specific aspects of nursing care for neurogeriatric patients. The article discusses key components of care, including the use of standardized assessment tools as part of Comprehensive Geriatric Assessment (CGA), the management of cognitive impairment and behavioural and psychological symptoms of dementia (BPSD), delirium prevention, fall and neurogenic dysphagia risk prevention, as well as the principles of safe pharmacotherapy, effective communication, and caregiver support. **(JNNN 0000;0(0):0–0)**

Key Words: neurogeriatric patient, neurogeriatrics, nursing care

Streszczenie

Specyfika opieki pielęgniarskiej nad pacjentem neurogeriatrycznym wynika z bezpośredniego nałożenia się procesów starzenia, ubytków neurologicznych oraz wielochorobowości, co wymaga holistycznego podejścia łączącego elementy pielęgniarstwa neurologicznego, geriatrycznego i psychiatrycznego. Dynamiczne zmiany demograficzne oraz wydłużenie średniej długości życia prowadzą do wzrostu liczby pacjentów w wieku starszym ze współistniejącymi schorzeniami układu nerwowego. Neurogeriatria stanowi interdyscyplinarną dziedzinę medycyny łączącą elementy neurologii, geriatrii oraz psychiatrii. Opieka pielęgniarska w tym obszarze charakteryzuje się wysokim stopniem złożoności wynikającym z nałożenia się fizjologicznych procesów starzenia, zespołu wielochorobowości (*multimorbidity*), wielolekowości (*polypharmacy*) oraz obecności zespołów geriatrycznych.

Niniejsza praca poglądowa stanowi kompleksową analizę specyfiki opieki pielęgniarskiej nad pacjentem neurogeriatrycznym. W artykule omówiono kluczowe elementy opieki: stosowanie standaryzowanych narzędzi diagnostycznych w ramach Całościowej Oceny Geriatrycznej (COG), postępowanie w zaburzeniach funkcji poznawczych i objawach neuropsychiatrycznych (Behavioral and Psychological Symptoms of Dementia — BPSD), profilaktykę majaczenia (*delirium*), zapobieganie ryzykom upadków i dysfagii neurogennej, a także omówione zostały zasady bezpiecznej farmakoterapii, komunikacji i wsparcia opiekunów. **(PNN 0000;0(0):0–0)**

Słowa kluczowe: pacjent neurogeriatryczny, neurogeriatria, opieka pielęgniarska

Introduction

Ageing of the nervous system is associated with a decline in neuronal reserve, reduced cerebral blood flow, an increase in chronic low-grade inflammation (*inflammaging*), and impaired blood–brain barrier integrity. These processes increase the susceptibility of the ageing brain to neurodegenerative disorders (e.g. Alzheimer's disease and Parkinson's disease) and cerebrovascular damage (e.g. cerebral small vessel disease [CSVD] and sequelae of stroke).

Neurogeriatrics has emerged in response to the unique clinical characteristics of the oldest patient population, in whom neurological symptoms rarely occur in isolation. They commonly coexist with frailty syndrome, sensory impairments (visual and hearing impairment), and chronic internal medicine conditions [1,2].

Research findings indicate an increasing prevalence of disability among adults aged >75 years. Such disability may result, among other factors, from neurological deficits, including mobility impairment and falls associated with vertigo, stroke, cerebral small vessel disease, Parkinson's disease (PD), or polyneuropathy [3,4]. Motor and cognitive impairments commonly occur in age-related neurological disorders, such as cerebrovascular diseases, Alzheimer's disease (AD), and Parkinson's disease (PD), as well as in systemic conditions, including inflammation (due to alterations in the blood–brain barrier accompanied by microglial activation and cardiovascular dysfunction. They may also result from drug interactions and adverse effects, including interference with neurotransmitter systems [2,5].

In this context, the nursing team plays a key role in the therapeutic process. Its responsibilities extend beyond implementing medical orders and include, above all, continuous monitoring of the patient's clinical condition, early detection of acute complications, provision of bedside rehabilitation, and coordination of multidisciplinary care.

The aim of this review is to present and systematize current knowledge on the specific aspects of nursing care for neurogeriatric patients, based on current guidelines and scientific evidence.

Structured Patient Assessment as Part of Comprehensive Geriatric Assessment (CGA)

The assessment of health status in neurogeriatrics is based on moving away from the traditional organ- or system-based assessment model towards Comprehensive Geriatric Assessment (CGA). Nursing teams play a key role in collecting data using standardized scales and assessment tools [6,7]. This interdisciplinary assessment provides the basis for developing individualized care plans [8,9].

Cognitive assessment: tools such as the Mini-Mental State Examination (MMSE) [10] and the Montreal Cognitive Assessment (MoCA) [11] are used to identify baseline cognitive deficits and monitor changes over time.

Functional status assessment: activities of daily living are assessed using standardized instruments such as the Katz Index of Independence in Activities of Daily Living (ADL) and the Lawton Instrumental Activities of Daily Living (IADL) Scale [12,13].

Delirium monitoring: daily use of the Confusion Assessment Method (CAM) [14] facilitates the identification of acute delirium and its differentiation from chronic cognitive impairment associated with dementia.

Table 1 presents the assessment scales most commonly used in nursing practice.

Table 1. Summary of the most commonly used assessment tools in neurogeriatric nursing practice

Assessment domain	Assessment tool	Relevance to nursing practice
Functional status	Barthel Index [15], ADL [12], IADL [13]	Determination of the degree of dependence on others and eligibility for long-term care
Cognitive status	MoCA [11], MMSE [10]	Assessment of the severity of cognitive impairment
Disturbances of consciousness	CAM [14]	Differentiation of delirium from dementia and depression; assessment of changes in the level of consciousness over time
Fall risk	Morse Fall Scale [16], Timed Up and Go (TUG) Test [17]	Identification of patients at high risk of falls and implementation of appropriate safety measures
Swallowing disorders	Gugging Swallowing Screen (GUSS) [18]	Assessment of safe diet consistency before the administration of food or oral medications
Pain intensity	Pain Assessment in Advanced Dementia (PAINAD) Scale [19], Abbey Pain Scale [20]	Observational assessment of pain in patients with severe aphasia or advanced dementia

Selected Areas of Nursing Care

Cognitive Impairment, Delirium, and BPSD

Behavioural and psychological symptoms of dementia (BPSD), such as agitation, aggression, wandering, hallucinations, and apathy, represent one of the greatest challenges in nursing care.

Appropriate management should include:

1. Appropriate communication strategies. Using clear, simple sentences, speaking in a calm, low tone of voice, and maintaining direct eye contact.
2. Validation therapy. Acknowledging and validating the patient's emotional reality rather than forcefully correcting their orientation, thereby minimizing agitation [21–23].
3. Pleasant stimuli. Incorporating personal items, family memorabilia, structured music interventions, and reminiscence therapy into the patient's environment [24].
4. De-escalation protocols. Using immediate distraction, gentle modulation of the tone of voice, or temporary environmental modifications when challenging behaviours occur [25].
5. Non-verbal pain assessment. Pain in neurogeriatric patients is often not reported directly because of aphasia or apraxia. Unexplained psychomotor agitation should be considered a potential manifestation of uncontrolled pain and assessed using the PAINAD scale, which includes evaluation of breathing, negative vocalization, facial expression, body language, and consolability.

Mobility Safety and Fall Prevention

Neurogeriatric patients may exhibit characteristic gait disturbances, including festinating and shuffling gait in Parkinson's disease, magnetic gait in normal pressure hydrocephalus (NPH), and ataxic gait associated with cerebellar or vascular lesions. These disturbances substantially increase the risk of injury and permanent functional decline.

Appropriate management should include:

1. Environmental modification. Maintaining consistent lighting and a quiet environment and providing clearly visible clocks and calendars to minimize confusion. Low-height electric beds, bedside alarm mats, and call systems should be used instead of rigid physical restraints.
2. Sensory enhancement. Ensuring regular use of assistive devices, such as eyeglasses and hearing aids, to reduce the risk of falls associated with sensory deprivation.
3. Mobilization and prevention of orthostatic hypotension. Due to the frequent occurrence of dysautonomia and medication-induced orthostatic hypotension, transition from a lying to a standing position should be performed gradually. The patient should remain seated for at least 2 minutes before standing, with blood pressure monitoring.
4. Early rehabilitation and physical activation. Early collaboration with physiotherapists and occupational therapists is essential to ensure the safe use of mobility aids. Short, routine periods of wheelchair mobility and exposure to morning sunlight should be planned to help stabilize circadian rhythms [26,27].

Nutrition, Hydration, Management of Neurogenic Dysphagia, and Prevention of Aspiration Pneumonia

Neurodegenerative diseases directly contribute to motor and sensory deficits affecting food intake, thereby increasing the risk of malnutrition [28]. Dysphagia occurs in more than 50% of patients following stroke and in advanced stages of neurodegenerative diseases. It is a major cause of aspiration pneumonia, which poses a direct threat to the life of older patients.

Appropriate management should include:

1. Dysphagia screening. Performing bedside swallowing assessments to identify signs of impaired swallowing efficiency and prevent aspiration pneumonia.
2. Meal modification. Feeding should be performed only with the patient in an upright seated position (90°). The chin-tuck manoeuvre may be used during swallowing to narrow the pharyngeal space and protect the laryngeal inlet. A slower eating pace should be encouraged, distractions should be minimized, and food consistency should be modified according to the patient's chewing ability.
3. Hydration monitoring. Close monitoring of fluid intake is required to prevent systemic dehydration, a recognized precipitating factor for acute delirium [28,29].

Pharmacotherapy Safety and Anticholinergic Cognitive Burden (ACB)

Reduced hepatic and renal drug metabolism in older adults increases the risk of drug toxicity. Nurses are responsible for the correct administration of medications and monitoring for adverse effects.

Appropriate management should include:

1. Verification of medication dose and formulation. Modified-release tablets, including sustained-release, controlled-release, and extended-release formulations (SR, CR, XL), as well as enteric-coated tablets, must not be crushed, as this may result in rapid release of the accumulated dose (dose dumping) and subsequent complications.
2. Assessment of anticholinergic burden (ACB). Medications with anticholinergic properties, including certain antipsychotics, antihistamines, antiparkinsonian medications, and drugs used to treat overactive bladder, may cause dry mouth (thereby aggravating dysphagia), constipation, urinary retention, and, most importantly, worsening cognitive impairment and delirium in older adults. Nursing staff should report any worsening of these symptoms to the physician so that pharmacotherapy can be reviewed and modified if necessary.

Communication and Interdisciplinary Coordination of Care

Neurogeriatric nursing care encompasses not only the patient but also their home environment and caregivers. The care team must consider caregiver burnout and caregiver burden.

Appropriate management should include:

1. Implementation of standards for communication with the patient. Short, unambiguous sentences should be used, with one message communicated at a time. Information overload and distracting environmental stimuli should be reduced. Eye contact should be maintained at the patient's eye level. Sufficient time (at least 15–20 seconds) should be allowed for the patient to process a question and formulate a response.
2. Caregiver education [30]. Family members should be taught basic caregiving skills, mindfulness practices, and behavioural management strategies. Early discussions regarding preferences and directives for future care should be initiated. Families should also be connected with respite care services and multidisciplinary social support networks.

Conclusions

Nursing care in neurogeriatrics requires a unique combination of knowledge of nervous system pathophysiology, the ability to interpret age-related changes, and highly developed interpersonal skills. The implementation of structured clinical assessment tools (CGA, CAM, GUSS) facilitates a transition from a reactive model of care, focused on responding to complications after they occur, towards a proactive and preventive model of care.

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