



Delirium in long-term care facilities: a challenge for clinicians and researchers

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Delirium, a frequent yet often overlooked neuropsychiatric syndrome, has been studied primarily in hospitalized and intensive care patients, where it is commonly caused by acute illness, surgery, or trauma [1]. However, residents in long-term care facilities (LTCF) also represent a high-risk population. Although they are usually in stable or slowly deteriorating health, their burden of frailty, multimorbidity, and cognitive impairment makes them especially vulnerable. The reported prevalence of delirium in LTCF varies widely across countries and settings, from around 9% in the Netherlands and 14% in Belgium to nearly 37% in Italy, 20% in the United States and over 70% in some Canadian facilities [2–4]. This variability reflects methodological differences and underscores the recommendation from the 2023 NICE guidelines to conduct large-scale cohort studies of delirium in LTCF [5]. Despite its high prevalence and serious consequences, delirium remains substantially underrecognized in LTCF, with studies reporting that up to 87% of cases go unnoticed, particularly when specific screening tools are not routinely used.

In this special issue, the most relevant aspects of delirium in LTCF have been addressed.

In a paper discussing the epidemiology of delirium in LTCF, Ornago and colleagues [6] explore the global prevalence of delirium, with a specific focus on the delirium assessment methods. The data were collected as part of a large international prevalence survey conducted on World Delirium Awareness Day (WDAD) on March 15th, 2023 [7]. The majority of the participating centers were located in Europe and Australia (47.9% and 48.9%). The overall prevalence of delirium was 12%, with higher rates when units used a validated tool rather than personal judgement in detecting delirium. The most widely used tools were the 4-A's test (4AT) (48.9%), Confusion Assessment Method (CAM) (13.8%), Diagnostic and Statistical Manual of Mental Disorders (DSM-5) criteria (4.3%), 3DCAM (1.1%), and the Nursing Delirium Screening Scale (NUDESC) (1.1%). The delirium assessment was most frequently carried out by nurses in rehabilitation facilities and triggered by the occurrence of acute changes in LTCF. The heterogeneity in the findings and in the assessment methodology underlines the importance of providing guidance in a setting characterized by variations in resident and healthcare personnel characteristics.

Subsequently, the paper by Mansutti et al. [8] reviews the current evidence on tools used to assess delirium in LTCF. There is evidence on validity and reliability for 14 delirium detection tools used in LTCF. The most widely used tools are the CAM (long form, short form and NH versions), the NUDESC, the Delirium Index, the Delirium Rating Scale-Revised-98 (DRS-R98), and the 4AT. The findings suggest that integrating a standardized combination of screening and diagnostic procedures into routine practice could enhance accuracy and early detection. A two-step approach, for instance, where a brief screening tool (e.g., Delirium Diagnostic Tool-Provisional DDT-Pro or I-Aged) [28] performed by nurses, nurse-aids and/or family members, is followed by

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a more detailed assessment of screen-positive cases according to DSM-5 criteria, might be particularly effective.

In a paper on the etiology of delirium, Rouhahbia and colleagues underscore that delirium in LTCF is rarely due to a single cause; instead, multiple concurrent factors collectively precipitate and sustain the condition. The authors propose a framework—the “three Ps” model of Predisposing, Precipitating, and Perpetuating factors—to conceptualize this complexity. This approach potentially addresses key challenges in delirium care: it enhances understanding by mapping out the diverse risk factors, improves diagnosis by highlighting the multifactorial risk profile and aiding differentiation from other conditions, and informs management by advocating comprehensive, multicomponent interventions rather than focusing on isolated triggers.

Beccacece and colleagues [9] further expand our understanding of delirium etiology in LTCF by investigating the possible relationship between medications and delirium in LTCF. The etiology of delirium is often multifactorial, and medications can be involved as predisposing and precipitating factors, which complicate the assignment of causality for delirium occurring in dementia, frailty, multimorbidity, and acute diseases. Therefore, the relationship between delirium and medications cannot be derived from studies conducted in acute hospital settings. In this review, the authors recommend that the use of anticholinergic agents should be minimized, while further investigations are required to clarify the association between delirium and benzodiazepines, antipsychotics and opioids.

Takeya and Arai [10] address the important gap in the literature that exists for a structured investigation of the association between delirium and negative outcomes in LTCF. When exploring this association, one should be aware that the varying terminology used to define LTCF (e.g. nursing home, care home, assisted living facility, post-acute care, intermediate care, respite care, etc.), might lead to confusion and heterogeneity in the interpretation of study findings. This review included 14 studies that investigated and found a negative association with the following outcomes: mortality, cognitive decline, deterioration in activities of daily living, incidence of falls, and composite outcomes. However, there is substantial heterogeneity in the study design and outcome measures, leading the authors to suggest that future studies should include a core set of outcomes, including severity of delirium, delirium-related distress, cognition, including memory, hospitalization, and mortality [11].

A final contribution is the paper investigating the role of Occupational Therapy (OT) in delirium care in LTCF [12]. It is well recognized in acute hospital settings that a multicomponent and multidisciplinary approach is effective in the prevention of delirium.[5] However, this evidence is still non-conclusive in LTCF. Preliminary data suggest that OT might be effective in the management of delirium in LTCF

in persons with dementia, but caveats include the limited number of OTs and the current limited knowledge of the potential role of this profession by others in the multidisciplinary team. [13, 14].

In conclusion, the current literature on delirium in LTCF remains limited, with substantial gaps regarding its epidemiology, natural history, and the effectiveness of preventive and therapeutic interventions. This special issue is an important and timely contribution for advancing the science and care of delirium in persons residing in LTCF. However, much work remains to be done. The NICE guidelines consistently highlight the urgent need for large cohort studies to clarify delirium’s long-term outcomes and to identify feasible, cost-effective strategies for prevention and management in LTC populations [5]. While recognizing these limitations, delirium care in LTCF must be approached as an integrated, multidisciplinary, and person-centered process—one that prioritizes early recognition, consistent communication, and ongoing professional development to improve outcomes and quality of life for residents.

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