

# Harming those we intend to help: hospital-acquired complications in patients with dementia

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Life expectancy has increased around the world, but healthy life expectancy has not kept pace.<sup>1</sup> Dementia is one of the chronic diseases responsible for this discrepancy. While the age-adjusted incidence of dementia is declining, longer lives mean that the prevalence, and consequently the burden of disability, are increasing.<sup>2</sup> In Australia, the number of people living with dementia is predicted to more than double, to about 850 000 people, by 2058.<sup>3</sup> This rise will pose a substantial challenge for hospitals, which are largely designed to meet the needs of robust patients with single, biological disorders rather than frail patients with complex biopsychosocial problems, such as dementia.

In this issue of the *MJA*, Ní Chróinín and colleagues<sup>4</sup> assessed the risk of harm to older patients with dementia admitted to five hospitals in southwestern Sydney during 2010–2020. Among the 217 000 hospitalised patients aged 60 years or older, 11 393 patients with dementia were matched with control patients without dementia, using a propensity score based on key clinical and demographic factors. The characteristics of the well matched cohort were consistent with being a frail patient group: matched patients were older and more likely to be women, to have two or more medical conditions, and to have a history of falls than unmatched patients without dementia.

The key finding by Author and colleagues was that dementia is an independent risk factor for several hospital-acquired complications, including geriatric syndromes (falls, pressure injuries, delirium) and pneumonia, as well as for in-hospital death. The risks of new incontinence and malnutrition were not significantly greater for patients with dementia, but this could reflect low rates of clinical documentation and coding of these conditions, an inherent limitation for administrative data analyses. The median hospital length of stay was longer for patients with dementia than for matched patients without dementia, but it is not clear whether this is a cause or consequence of hospital-acquired complications.<sup>4</sup>

Dementia is closely linked with frailty: the risk of dementia is higher in people with frailty, and frailty increases in severity after the onset of dementia.<sup>5,6</sup> We have known for some time that older patients with frailty are more likely to experience hospital-acquired complications.<sup>7</sup> Frailty reflects the progressive failure of a complex system; higher order functions, such as walking, are the first to be compromised by stressors, as they require the precise coordination of multiple physiological components. Prior and incident falls were frequently reported in the study by Ní Chróinín and colleagues.<sup>4</sup> But why is it that patients with dementia were more than four times as likely to fall in hospital as patients without dementia? Although residual confounding by unmeasured aspects of frailty may have contributed to the difference (significant differences between patients with and without dementia in terms of mobility, functional dependence, comorbidity, sensory impairment, and other characteristics), pathways to harm that particularly affect patients with dementia are likely. For example, for some patients with dementia

expressions of unmet needs and the adverse effects of restrictive practices used to manage these expressions could contribute to falls. Delirium, which often affects patients with dementia, could precipitate a cascade of complications (including falls and other geriatric syndromes) because of common sequelae of drowsiness, poor oral intake and immobility, and agitation, disturbances of circadian rhythm, and neuropsychiatric symptoms.

Many factors can precipitate or perpetuate harm to patients with dementia during hospitalisation (Box). Strong evidence suggests

## Factors that precipitate or perpetuate harm to patients with dementia in hospital<sup>8,9</sup>

### Attitudes and beliefs

- Underlying negative attitudes contribute to inappropriate (“acopia”) and disrespectful (“demented patient”) labels.
- Discrimination contributes to inadequate assessment and care.

### Environment

- The physical environment is typically noisy and crowded with few orientation cues.
- The social environment is isolating and lacks cognitive stimulation or orientation strategies.

### Nutrition and hydration

- Patients may miss meals because of disturbed circadian rhythms, fluctuating levels of alertness, and communication difficulties.
- Inadequate staffing and training affects meal set-up, safe positioning, and feeding.
- Access to food and drinks may be limited by immobility and the ward environment.
- Available nutrition may not be consistent with patient preferences (eg, thickened fluids and modified diets).

### Interventions

- Pharmacological management of delirium and behavioural and psychological symptoms of dementia are associated with significant adverse effects.
- Potentially inappropriate medications (eg, opiates, anticholinergic medications) and polypharmacy increase the risk of adverse effects.
- Procedures such as urinary catheterisation increase the risk of infection and delirium.

### Trained staff

- Inadequate staffing and lack of dementia-specific care skills particularly affect patient mobility, nutrition and hydration.
- Pain and other unmet needs are not well recognised, assessed, or managed.

### Mobilisation

- Inadequate staffing and training in risk enablement contribute to patients being encouraged to remain in bed.

### Communication

- Patients have inconsistent access to glasses and hearing aids.
- Busy clinical workloads, cultural and linguistic diversity, and limited staff training affect effective verbal and non-verbal communication with patients.

### Sleep

- The physical environment is not conducive to sleep because of noise from staff, co-patients, and equipment, and excessive artificial light.
- Medications frequently prescribed in hospital affect sleep onset and quality.
- Administration of medications and other clinical interventions (eg, blood sugar testing, vital sign measurement) disrupt sleep.

that multicomponent, person-centred interventions that encourage mobilisation, healthy nutrition and hydration, and socialisation,<sup>10,11</sup> and specialist gerontological care comprising multidisciplinary geriatric assessment and management<sup>12,13</sup> reduce the risks of hospital-acquired complications and other adverse outcomes for older patients, and evidence is growing for dementia-friendly environmental design of hospital wards.<sup>14</sup> However, implementing these interventions on a large scale has been limited by inadequate investment by health services and governments, despite improved safety and quality of care for patients with dementia being defined as a national (and global) priority.<sup>15</sup>

Much can be done by hospital staff to enhance patient safety. Clinical leaders and managers can encourage staff attitudes, skills, and behaviours that promote quality care for patients with dementia. It is appropriate to acknowledge that assessing and caring for patients with dementia can be difficult: history-taking and examination can be limited, patients may be aggressive and resist care or be passive and withdrawn, and their complex problems often take longer to resolve or do not resolve at all. Pejorative labels that perpetuate a culture of discrimination and undermine care should not be tolerated, nor should therapeutic nihilism. Instead, hospital staff should be trained in person-centred dementia care and communication, and high quality care for patients with dementia should be promoted as core business.

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