Averting avoidable deaths of nursing home residents

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The safety of our older citizens can be improved by targeting known risk factors

How well are we caring for older, frail and vulnerable citizens in residential aged care facilities (RACFs)? The retrospective study of deaths in nursing homes during 2000–2013 reported in this issue of the *MJA*[1] is an important review of the quality of care at the end of life. We could be doing better.

Ibrahim and colleagues reviewed the deaths of nursing home residents reported to coroners. The criteria for reporting deaths vary between states, but generally include any deaths from falls or other injuries, as well as other unexpected or "unnatural deaths". This concept includes deaths resulting from injuries that:

> directly caused the death, for example, a subdural haematoma sustained in a mechanical fall, or contributed to the death and without which the person would not have died … Deaths should still be regarded as unnatural even when the causative event occurred a substantial period prior to death. In those cases there is frequently some complication that actually causes the death but if it is attributable to the initial injury the death can be said to be unnatural and therefore reportable.[2]

Death after a fall is defined in all states as "a violent or otherwise unnatural death"[2]; death after surgery, such as fixation of a fractured hip, may be considered an unexpected outcome of a health-related procedure. What is natural and what is unnatural can be at the discretion of the doctor signing the death certificate, so that under-reporting of avoidable deaths is likely.

Frailty is an increasingly important concept, and can be measured using gait speed, strength, activity levels, weight loss, and comorbidities as indicators.[3,4] The aged care system in Australia includes assessment services and community support mechanisms that enable older people to remain in their own homes for as long as possible. Residents of RACFs are therefore typically frail: they were no longer able to look after themselves in their own homes, and are inherently more susceptible to adverse events, particularly falls, and to suffer complications of injury, surgery, and hospitalisation. The very old (those over 85), are over-represented in the complications statistics, the result of a combination of their greater risk for falls and increased mortality from injury. Falls prevention is a complex but well researched area of health care.[5] Risk assessment is only part of falls prevention; implementing guidelines for averting falls in busy and understaffed nursing homes is challenging, and must balance the freedom and mobility of residents against their risk of serious injury.

Of all deaths of nursing home residents during the study period,[1] 15% were attributed to external causes, most commonly falls (82% of external cause deaths). While it has long been recognised that patients with falls and hip fractures are at high risk of dying within a year of their injury, other causes of death described by Ibrahim and his co-authors are more worrying: choking (261 deaths) and suicide (146 deaths). Choking may be attributed to underlying medical conditions, including stroke and Parkinson's disease, but the number of deaths underscores the need for expert swallowing assessment, modified diets, and sufficient staff to supervise meals or to feed patients as required. Older men are at greater risk of suicide.[6] A small number of deaths resulted from resident-to-resident violence, usually involving patients with dementia. All these events are very distressing for families and staff.

Almost all incidents leading to death (96%) occurred in the nursing home where the resident lived; this is unsurprising, as this is where residents spend almost all their time. However, two-thirds of deaths occurred in hospital, not in the RACF. This may be unavoidable, as acute medical care may be needed, but it is not in keeping with the desire of most people to die in familiar surroundings. A coroner's inquest may ensue, but Ibrahim and colleagues report that this was very uncommon (3% of external cause deaths), suggesting that examining these deaths further was not regarded as being in the public interest.

Are frail older people dying unnecessarily after a traumatic event, and in hospital rather than peacefully at home? The death of a person living in an RACF may not be regarded as "unnatural", and may therefore not be reported to the coroner or further investigated. Families, residential care staff and doctors may regard it as the unfortunate consequence of the frailty that was the reason the older person moved to the home. The opportunity to identify and reduce risks and improve care is thereby lost. We all have the right to be safe in our homes, and the recommendation by Ibrahim and

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his co-authors for action in policy, practice and research should be heeded by our federal and state Departments of Health, responsible for aged care.

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1 Ibrahim JE, Bugeja L, Willoughby M, et al. Premature deaths of nursing home residents: an epidemiological analysis. *Med J Aust* 2017; 206: 442-447.

2 Queensland Courts. State Coroner's guidelines 2013. Chapter 3 Reporting deaths. http://www.courts.qld.gov.au/__data/assets/pdf_file/0013/206122/osc-state-coroners-guidelines-chapter-3.pdf (accessed Apr 2017).

3 Rockwood K, Mitnitski A. Frailty in relation to the accumulation of deficits. *J Gerontol A Biol Sci Med Sci* 2007; 62: 722-727.

4 Fried LP, Tangen CM, Walston J, et al. Frailty in older adults: evidence for a phenotype. *J Gerontol A Biol Sci Med Sci* 2001; 56: M146-M156.

5 Australian Commission on Safety and Quality in Health Care. Preventing falls and harm from falls in older people: best practice guidelines for Australian residential aged care facilities 2009. Sydney: ACSQHC, 2009. www.safetyandquality.gov.au/wp-content/uploads/2012/01/Guidelines-RACF.pdf (accessed Apr 2017).

6 Almeida OP, Draper B, Snowdon J, et al. Factors associated with suicidal thoughts in a large community study of older adults. *Br J Psychiatry* 2012; 201: 466-472. ■