

Delayed Emergency Analgesia for Patients With Dementia and Hip Fracture

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Dementia is a risk factor for hip fracture and is associated with poorer rehabilitation outcome¹ and decreased survival.^{2,3} There is evidence to suggest that pain in patients with dementia and hip fractures may be undertreated in prehospital,⁴ emergency department⁴ (ED), and postoperative⁵ settings.

We studied consecutive new patients with hip fracture who presented to an ED with a census of 55 322 attendances per year in a regional Orthopaedic Centre in Ireland between January 01, 2013, and March 31, 2014, identified using a registry for the Irish National Hip Fracture Database.

Patients were considered to have dementia when the diagnosis was documented in their medical notes, either prior to or during the index admission. The outcome measure used was time in minutes from ED arrival to the first dose of analgesic. Time-to-event analysis of the primary outcome was by the Kaplan-Meier method, stratified by cognitive status.

We identified 133 consecutive patients who presented to ED de novo over 15 months with hip fractures. Of these 38 (29%) had documented dementia. The median Mini-Mental State Examination score of patients with dementia was 17, interquartile range (IQR) 10 to 19. The median age of patients with known dementia was 84 (IQR 79-87).

The interval between ED arrival and first dose of analgesia was significantly longer for patients with dementia than for the cognitively intact, $p = .027$ (log rank; Figure 1). Median time to analgesia for patients with dementia was 164 minutes versus 90 minutes for the cognitively intact.

These findings suggest that timely pain relief for patients with dementia and hip fracture is problematic. Many factors, including clinician awareness, difficulty in detecting pain and assessing response to pain relief in patients with dementia, the potential for undertriage, and delayed diagnosis of fractures, may be involved.

Recent studies in other health-care jurisdictions (United Kingdom⁴ and Australia⁶) also reported dementia as a barrier to analgesia for hip fractures in the ED. Taken together with these, our study suggests that more active assessment and management of pain are required in this increasingly prevalent and vulnerable condition.

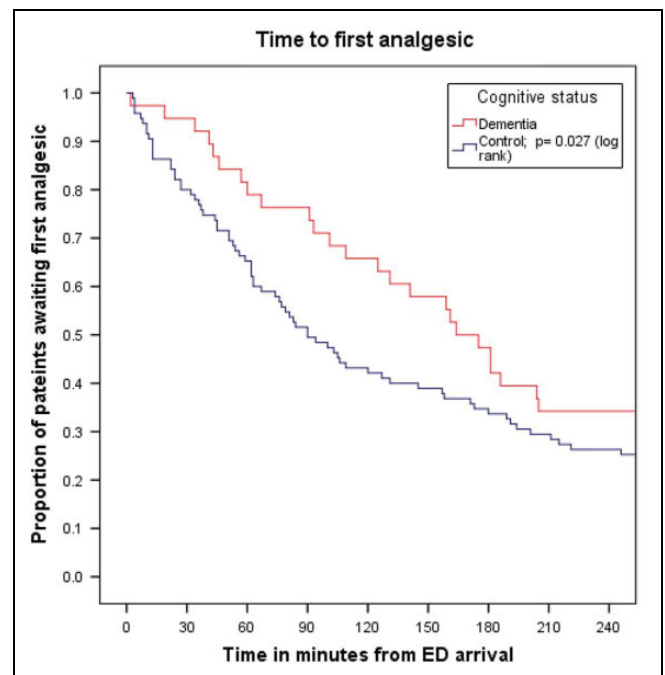


Figure 1. Time to first dose of analgesia by cognitive status.

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