



## **UWL REPOSITORY**

**repository.uwl.ac.uk**

Mortality and its predictors amongst patients with advanced dementia  
receiving psychiatric inpatient care

Marguet, Oriane E., Chen, Shanquan, Sidhom, Emad, Wolverson, Emma, Russell, Gregor, Crowther, George, White, Simon R, Dunning, Rebecca, Shahrin, Hasan, Underwood, Benjamin R and Lewis, Jonathan (2025) Mortality and its predictors amongst patients with advanced dementia receiving psychiatric inpatient care. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*, 20 (3). p. 1. ISSN 1552-5260

<https://doi.org/10.1002/alz.090699>

**This is the Published Version of the final output.**

**UWL repository link:** <https://repository.uwl.ac.uk/id/eprint/13518/>

**Alternative formats:** If you require this document in an alternative format, please contact:  
[open.research@uwl.ac.uk](mailto:open.research@uwl.ac.uk)

**Copyright:** Creative Commons: Attribution 4.0

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

**Take down policy:** If you believe that this document breaches copyright, please contact us at [open.research@uwl.ac.uk](mailto:open.research@uwl.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.

## NEUROPSYCHIATRY AND BEHAVIORAL NEUROLOGY

## Mortality and Its Predictors Amongst Patients With Advanced Dementia Receiving Psychiatric Inpatient Care

Oriane E Marguet<sup>1</sup> | Shanquan Chen<sup>2</sup> | Emad Sidhom<sup>1</sup> | Emma Wolverson<sup>3,4</sup> |  
Gregor Russell<sup>5</sup> | George Crowther<sup>6</sup> | Simon R White<sup>7,8</sup> | Rebecca Dunning<sup>9</sup> |  
Hasan Shahrin<sup>10</sup> | Benjamin R Underwood<sup>1,11</sup> | Jonathan Lewis<sup>12</sup>

<sup>1</sup>University of Cambridge, Cambridge, Cambridgeshire, United Kingdom

<sup>2</sup>Keppel St, London, London, London, United Kingdom

<sup>3</sup>Dementia UK, London, London, United Kingdom

<sup>4</sup>University of Hull, Hull, East Yorkshire, United Kingdom

<sup>5</sup>Bradford District Care NHS Foundation Trust, Bradford, United Kingdom

<sup>6</sup>Leeds and York Partnership NHS Foundation Trust, Leeds, West Yorkshire, United Kingdom

<sup>7</sup>University of Cambridge, Cambridge, United Kingdom

<sup>8</sup>MRC Biostatistics Unit, University of Cambridge, Cambridge, United Kingdom

<sup>9</sup>Humber Teaching NHS Foundation Trust, Hull, East Riding of Yorkshire, United Kingdom

<sup>10</sup>Bradford District Care NHS Foundation Trust, Bradford, West Yorkshire, United Kingdom

<sup>11</sup>Cambridgeshire and Peterborough NHS Foundation Trust, Cambridge, United Kingdom

<sup>12</sup>Cambridgeshire and Peterborough NHS Foundation Trust, Cambridge, Cambridgeshire, United Kingdom

## Correspondence

Oriane E Marguet, University of Cambridge, Cambridge, Cambridgeshire, United Kingdom.  
Email: [oem27@cam.ac.uk](mailto:oem27@cam.ac.uk)

## Abstract

**Background:** People with dementia frequently develop behavioural and psychological symptoms, sometimes necessitating care in specialist dementia mental health wards. There has been little research on their life expectancy following admission or need for palliative care. The work presented here explores the mortality of these patients and whether this can be predicted at their time of admission to the ward.

**Method:** We conducted a retrospective analysis of 576 patients admitted to the Cambridgeshire and Peterborough NHS Foundation Trust dementia mental health wards in the United Kingdom, and built a Kaplan-Meier survival curve as well as machine learning models. Next, to examine changes in deaths occurring over time, a retrospective service evaluation was conducted involving four mental health wards for people with dementia in the United Kingdom, encompassing a further 1,976 patients.

**Result:** The median survival length post-admission was 1201 days. Clinical data collected on admission did not predict mortality in machine learning models at a level of accuracy likely to have clinical utility. Data from four different wards show that the number of patients dying in dementia mental health wards has increased over time.

**Conclusion:** Our cohort had a high mortality, although with a wide range of survival times. We suggest all people admitted to these units should have discussions and access to high-quality end-of-life care.