

Veneto Region dementia-related mortality during the COVID-19 pandemic: multiple causes of death and time series analysis

Eur J Public Health. 2023 Apr 1;33(2):190-195

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Abstract

Background

Older individuals with dementia have been severely affected by the COVID-19 pandemic. There is a lack of in-depth evaluation of mortality trends using both the underlying cause of death (UCOD) and the multiple causes of death (MCOD) approaches. The objective of this study was to determine the impact of the COVID-19 pandemic on dementia-related deaths considering comorbidities and the place of death.

Methods

This retrospective, population-based study was conducted in Veneto, Italy. All the death certificates of individuals aged ≥ 65 years issued from 2008 to 2020 were analyzed for dementia-related mortality using age-standardized sex-stratified rates of dementia as UCOD and MCOD. Excess in monthly dementia-related mortality in 2020 was estimated by applying Seasonal Autoregressive Integrated Moving Average (SARIMA) model.

Results

Overall, 70 301 death certificates reported dementia (MCOD proportional mortality: 12.9%), and 37 604 cases identified it as UCOD (proportional mortality: 6.9%). In 2020, the MCOD proportional mortality increased to 14.3% whereas that of UCOD remained static (7.0%). Compared to the SARIMA prediction, MCOD increased by 15.5% in males and 18.3% in females in 2020. Compared to the 2018-19 average, deaths in nursing homes increased by 32% in 2020, at home by 26% and in hospitals by 12%.

Conclusions

An increase in dementia-related mortality during the first months of the COVID-19 pandemic could only be detected using the MCOD approach. MCOD proved to be more robust, and hence, should be included in future analyses. Nursing homes appeared to be the most critical setting which should guide establishing protective measures for similar situations.

FULL TEXT

<https://pubmed.ncbi.nlm.nih.gov/36847686/>