

# Delirium in older patients associated with greater risk of death, dementia and institutionalization

July 27 2010

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A review and analysis of previous research indicates that delirium in elderly patients is associated with an increased risk of death, dementia, and institutionalization, independent of age, co-existing illnesses or illness severity, according to a study in the July 28 issue of *JAMA*.

"[Delirium](#) is a syndrome of acutely altered mental status characterized by inattention and a fluctuating course. With occurrence rates of up to half of older patients postoperatively, and even higher in [elderly patients](#) admitted to intensive care units, delirium is the most common complication in hospitalized older people," the authors write. "Evidence suggests that delirium is associated with long-term poor outcome but delirium often occurs in individuals with more severe underlying disease."

Joost Witlox, M.Sc., of the Medical Center Alkmaar, the Netherlands, and colleagues conducted an analysis of previous studies to assess the association between delirium and long-term poor outcomes in elderly patients while controlling for important confounders (other factors that can influence outcomes). The researchers identified 51 relevant articles. The primary analyses included only high-quality studies with statistical control for age, sex, comorbid (co-existing) illness or illness severity, and baseline dementia.

The primary analysis showed that delirium was associated with an

increased risk of death compared with controls after an average follow-up of 22.7 months. "Moreover, patients who had experienced delirium were also at increased risk of institutionalization and dementia," the authors write. Further analysis confirmed the strength of the results.

"The results of this meta-analysis provide evidence that delirium in elderly patients is associated with an increased risk, of death, institutionalization, and dementia, independent of age, sex, comorbid illness or illness severity, and presence of dementia at baseline. Moreover, our stratified models confirm that this association persists when excluding studies that included in-hospital deaths and patients residing in an institution at baseline," the researchers write.

The authors add that the results of this meta-analysis can be instrumental in patient care. "The low rate of survival and the high rates of institutionalization and [dementia](#) indicate that older people who experience delirium should be considered an especially vulnerable population."

"Future studies will have to establish what exact mechanisms are responsible for the long-term poor outcomes after delirium and whether clinical characteristics of delirium itself (e.g., duration or subtype) differentially influence prognosis. Moreover, clinical trials are needed to investigate whether the long-term sequelae associated with delirium can be averted."

**More information:** JAMA. 2010;304[4]:443-451.

Provided by JAMA and Archives Journals

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institutionalization (2010, July 27) retrieved 23 April 2024 from  
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