

Long-term Outcomes in patients who had a delirium diagnosis during the hospital stay: a systematic review and Meta-Analysis

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INTRO

- While the delirium literature largely focuses on care in the hospital setting, there is growing evidence regarding unfavorable long-term sequelae.
- The purpose of this systematic review is to summarize the long-term outcomes associated with delirium in the hospital in older patients.
- Outcomes included cognition, mental health illness, health care outcomes, medication issues, and functional status.

METHODS

- 2 authors performed a literature search
- Studies were included if delirium was diagnosed during the hospitalization in older patients.
- Excluded papers that were reviews, reports, commentaries, abstracts, not in English, outcomes only in the hospital, surgical studies and ICU patients.
- Newcastle-Ottawa scale was used to assess the quality of studies.
- Meta-analysis was performed for 1 year mortality
- PROSPERO (CRD42021261003)

RESULTS

- 13 articles were included in the final review
- Delirium rate ranged from 8.3% to 77%
- Mean age ranged from 71 to 87 years
- Quality of studies using NOS criteria was rated as good.
- Follow up ranged from 1 month to 10 years
- There was a decline in cognition
- One study showed a decline in function
- Four studies showed an increase in readmissions and nursing home placement
- One study showed that mortality was higher in those discharged on antipsychotics
- Mortality increased after discharge, in fact, in one study 1 year mortality was 50%

DISCUSSION

- This systematic review confirms that older adults who have delirium in the hospital have poor long-term outcomes. We hope to use this research to develop interventions for this set of patients in the post-hospitalization period to mitigate these outcomes and drive best practices for health care systems and clinicians as they are providing this care.

FINANCIAL DISCLOSURE

- None

Older adults who have delirium in the hospital have **worse long-term outcomes** including higher mortality, decrease in functional status and cognition, higher readmissions, nursing home placement and emergency room use. A meta-analysis of 4 studies demonstrated 1-year mortality in those with delirium to be twice when compared to those without delirium



Table 3

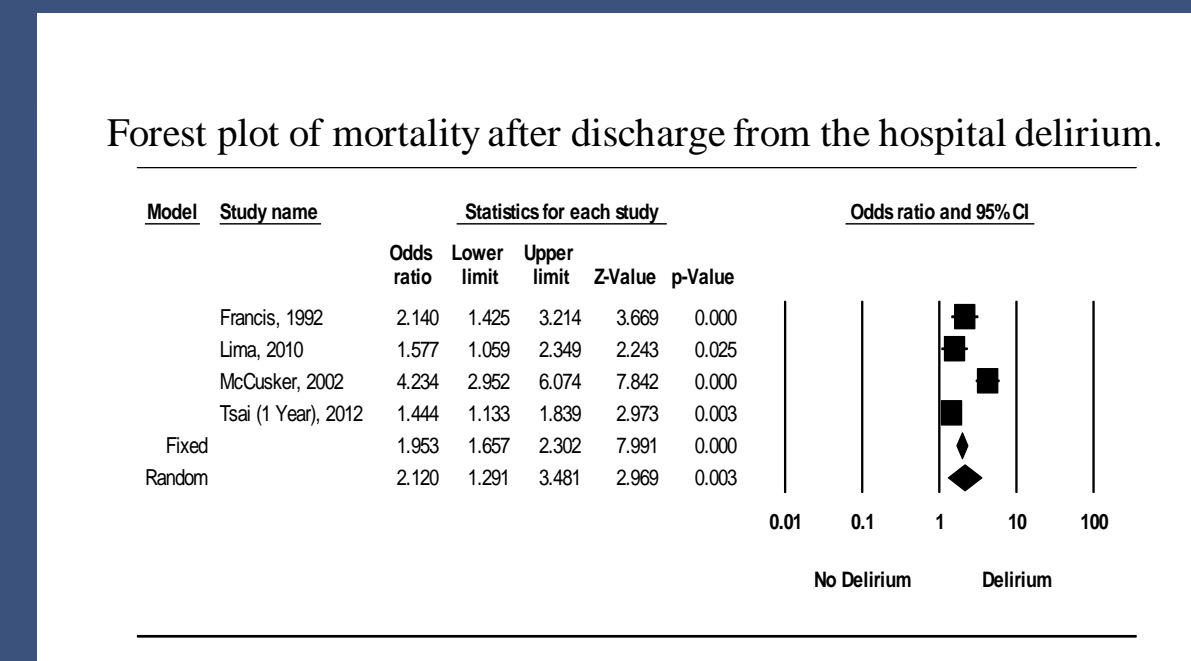


Table 4

Table 1 PICO Question

Population	Older patients admitted to the hospital with delirium
Intervention	N/A
Comparator	No Delirium
Outcomes	Long-term outcomes after delirium in the hospital, specifically cognition, mental health illness, health care outcomes, financial, medication issues, functional, and caregiver burden.
Timings	After discharge from the hospital
Settings	Post-hospital discharge in the community

Figure 1 PRISMA Flow Chart of Included Studies

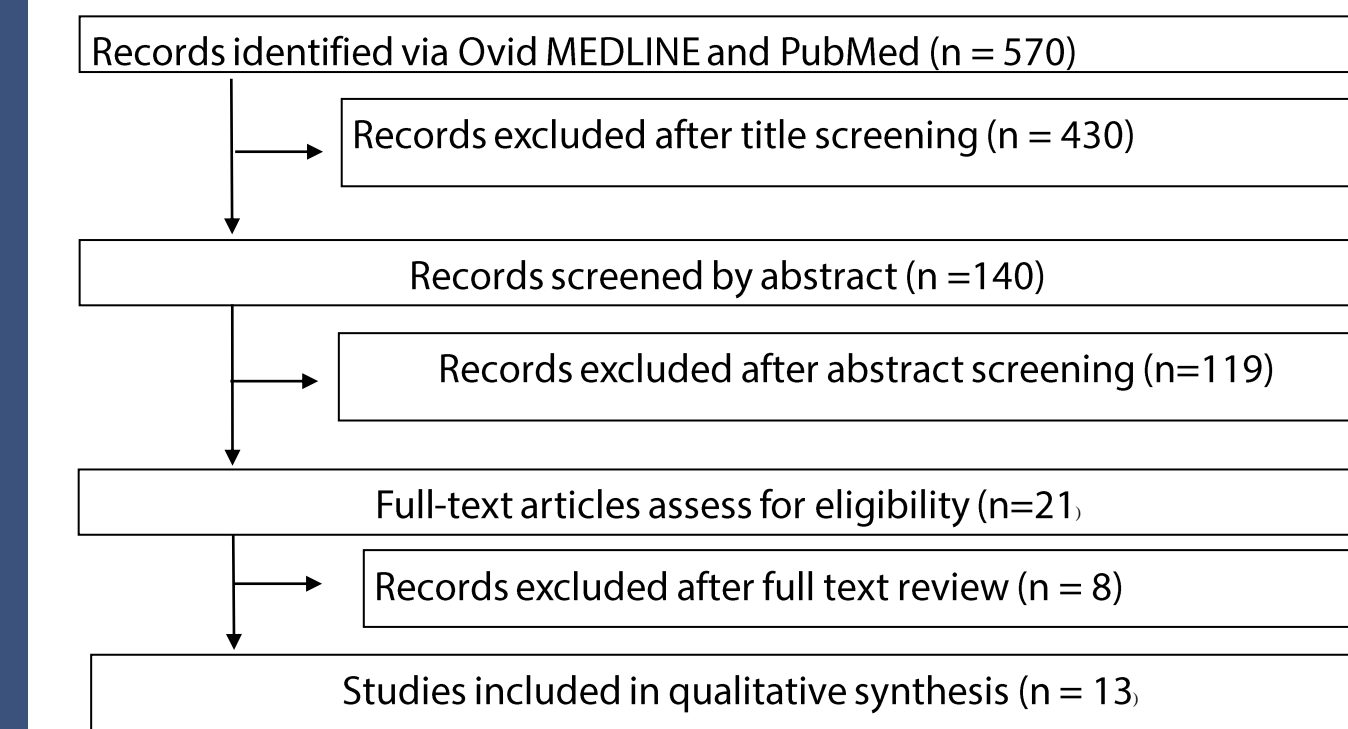


Table 2 Newcastle - Ottawa Quality Assessment Scale.

- Selection (maximum 6 stars)**
1. Representativeness of the exposed cohort
 2. Selection of the non-exposed cohort
 3. Ascertainment of exposure
 4. Demonstration that outcome of interest was not present at start of study

- Comparability (maximum 2 stars)**
1. Comparability of cohorts on the basis of the design or analysis controlled for confounders

- Outcome (maximum 5 stars)**
1. Assessment of outcome
 2. Was follow-up long enough for outcomes to occur
 3. Adequacy of follow-up of cohorts

Good quality: 3 or 4 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Fair quality: 2 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Poor quality: 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome/exposure domain



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