# **INPLASY**

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# Predictive role of delirium in hospitalized children: A systematic review and metaanalysis

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### **ADMINISTRATIVE INFORMATION**

**Support** - There is no source of financial support.

**Review Stage at time of this submission -** Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

**INPLASY registration number:** INPLASY202370011

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 03 July 2023 and was last updated on 13 August 2023.

# **INTRODUCTION**

Review question / Objective Delirium is an acute cognitive disorder with a high incidence in children. Current research suggests that the onset of delirium may be predictive of many adverse outcomes in adults, such as increased mortality, prolonged mechanical ventilation, and impaired cognitive function. However, it is not clear whether it may be predictive of childhood outcomes. Therefore, we conducted this study to explore the predictive role of delirium on disease and prognosis in children.

Condition being studied Delirium is an acute cognitive disorder, and it has been confirmed that the occurrence of delirium can bring adverse effects on adults, such as prolonged hospital stay, increased mortality, cognitive decline, etc., but whether the same results in children are unclear, which requires further research.

# **METHODS**

Participant or population Hospitalized children.

**Intervention** Children with delirium during hospitalization.

Comparator Children without delirium during hospitalization.

**Study designs to be included** Prospective or Cohort study.

Eligibility criteria None.

**Information sources** Pubmed, embase, cochrane, CINAHL.

Main outcome(s) Mortality, Length of ICU Stay, Mechanical Ventilation rate in hospital and Quality of life.

**Quality assessment / Risk of bias analysis** the Newcastle-Ottawa Scale, NOS.

**Strategy of data synthesis** Baseline data were presented using mean ± standard deviation or median (IQR), and heterogeneity was assessed using P + i2, if heterogeneity was small, using a fixed-effects model, and heterogeneity was greater using a random-effects model to pool the studies, publication offset was assessed by drawing funnel plots, and combined effect sizes were performed with STATA version 17 and RevMan version.

**Subgroup analysis** Subgroup analysis of outcome according to mortality, mechanical ventilation rate, length of hospital stay and quality of life.

**Sensitivity analysis** Stata software was used to Sensitivity analysis, by deleting one of the articles after the effect size changes to reflect the sensitive situation.

Country(ies) involved China.

**Keywords** delirium; children; mortality; mechanical ventilation; length of hospital stay; quality of life.

### Contributions of each author

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