



Non-pharmacological interventions to reduce the incidence and duration of delirium in critically ill patients: A systematic review and network meta-analysis

Luxi Deng

Xiangya Hospital, China.

Abstract:

Objective : To compare non-pharmacological interventions in their ability to prevent delirium in critically ill patients, and find the optimal regimen for treatment.

Methods: Literature searches were conducted using PubMed, Embase, CINAHL, and Cochrane Library databases until the end of June 2019. We estimated the risk ratios (RRs) for the incidence of delirium and in-hospital mortality and found the mean difference (MD) for delirium duration and the length of ICU stay.

Results: Twenty-six eligible studies were included in the network meta-analysis. Studies were grouped into seven intervention types: physical environment intervention (PEI), sedation reducing (SR), family participation (FP), exercise program (EP), cerebral hemodynamics improving (CHI), multi-component studies (MLT) and usual care (UC). In term of reducing the incidence of delirium, the two most effective interventions were FP (risk ratio (RR) 0.19, 95% confidence interval (CI) 0.08 to 0.44; surface under the cumulative ranking curve (SUCRA)=94%) and MLT (RR 0.43, 95% CI 0.30 to 0.57; SUCRA=68%) compared with observation.

Conclusions: Multi-component strategies are overall the optimal intervention techniques for preventing delirium and reducing ICU length of stay in critically ill patients by way of utilizing several interventions simultaneously. Additionally, family participation as a method of pa-



tient-centered care resulted in better outcomes for reducing the incidence of delirium.

Keywords: Delirium prevention; Intensive care unit; Non-pharmacological interventions; Network meta-analysis;

Biography:

Lexi Deng is a teacher and a research Section of Clinical Nursing, Xiangya Hospital, Central South University, China.

Recent Publications:

1. Non-pharmacological interventions to reduce the incidence and duration of delirium in critically ill patients: A systematic review and network meta-analysis.
2. Interaction between Schwann cells and other cells during repair of peripheral nerve injury.

[Webinar on Critical care and Emergency Medicine | December 14, 2020 | Dubai, UAE](#)

Citation: Luxi Deng, Non-pharmacological interventions to reduce the incidence and duration of delirium in critically ill patients: A systematic review and network meta-analysis, Webinar on Critical care and Emergency Medicine, December 14, 2020, Dubai, UAE.