

Multicomponent Intervention for Sleep and Delirium in SICU



Delirium affects nearly 60% of patients in the surgical intensive care unit (SICU). Sleep-wake disruption is a common risk factor in critically ill patients. However, to date, few SICU-focused delirium interventions have been implemented, even though factors like sleep-wake disruption are modifiable.

A study was conducted to determine the effect of a multicomponent non-pharmacological intervention on delirium and sleep quality. The intervention was designed to improve sleep-wake disruption in patients in the SICU setting.

Researchers implemented the intervention in two SICUs (general surgery/trauma and cardiovascular) in an academic medical centre. The non-pharmacological intervention used different measures to minimise disruption of sleep for critically ill patients. These measures included minimising sound and light during the night and providing earplugs and eye masks to SICU patients. Measures during the daytime included raising blinds and promoting physical activity. A daily checklist was used to ensure the SICU staff completed the key elements of the non-pharmacological intervention bundle. Delirium was evaluated twice daily using the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU). Patient sleep quality ratings were evaluated daily using the Richards-Campbell Sleep Questionnaire (RCSQ).

Six hundred and forty-six SICU admissions (332 baseline, 314 intervention) were analysed. The median age of the patients was 61 years. 35% of the patients who were analysed were female, and 83% were white. Findings show that during the intervention period, patients experienced fewer days of delirium of intensive care unit days compared to the pre-intervention period, with an adjusted pre-post decrease of 4.9%. The RCSQ perceived sleep quality ratings did not change but the RCSQ noise subscore increased.

These findings suggest that the multicomponent non-pharmacological intervention was associated with a significant reduction in the proportion of days patients experienced delirium. This reinforces the fact that effective interventions can minimise sleep-wake disruption and help reduce delirium and improve sleep quality in critically ill patients in the SICU.

Source: [Chest](#)

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Published on : Tue, 30 Mar 2021