Mobilization

Early mobilization is recommended for the prevention and treatment of delirium in critically ill patients, but the evidence remains inconclusive.

Method: Systematic literature search in Pubmed, CINAHL, PEDRo, Cochrane from inception to March 2022, and hand search in previous meta-analysis. Included were randomized trials or quality-improvement projects. meta-analysis was performed for Odds Ratios or mean differences including 95% Confidence Intervals for presence/duration of delirium. Risk of bias was assessed by using Joanna Briggs Quality criteria. meta-regression was performed to analyse heterogeneity.

Results: The search led to 13 studies of low-moderate risk of bias including 2,164 patients. Early mobilisation reduced the risk of delirium by 47 % (13 studies, 2,164 patients, low to moderate risk of bias: Odds Ratio 0.53 (95 % Confidence Interval 0.34 till 0.83, p = 0.01), with significant heterogeneity (I2 = 78 %, p < 0.001). Early mobilisation also reduced the duration of delirium by 1.8 days (3 studies, 296 patients, low-moderate risk of bias: Mean difference -1.78 days (95 % Confidence Interval -2.73 till -0.83 days, p < 0.001), heterogeneity 0 % (p = 0.41). Other analyses such as low risk of bias studies, randomised trials, studies published ≥ 2017, high intensity, and mobilisation as stand-alone intervention showed no significant results, with conflicting certainty of evidence and high heterogeneity. meta-regression could not explain heterogeneity.

Conclusion: There is an uncertain effect of mobilisation on delirium. Provision of early mobilisation to critical ill patients might prevent delirium. There is a possible effect of early mobilisation to shorten the duration of delirium. Due to the heterogeneity in the findings, further research to define the best method and dosage of early rehabilitation is required [1].

1)
Nydahl P, Jeitziner MM, Vater V, Sivarajah S, Howroyd F, McWilliams D, Osterbrink J. Early mobilisation for prevention and treatment of delirium in critically ill patients: Systematic review and meta-analysis. Intensive Crit Care Nurs. 2023 Feb;74:103334. doi: 10.1016/j.iccn.2022.103334. Epub 2022 Oct 27. PMID: 37440187.