Intubated ICU Patients Need Fewer Days of Ventilation When Not Continuously Sedated

Compared with interrupted sedation, no sedation was associated with significantly fewer days of ventilation and shorter ICU stay.

Critically ill patients who require mechanical ventilation in the emergency department usually receive postintubation sedation, but how long should sedation be continued? In a prospective study from Denmark, 140 critically ill adult patients who were expected to require mechanical ventilation for at least 24 hours were randomized within 24 hours after intubation to no ongoing sedation or sedation with daily interruption to wake the patient. Sedation was provided with propofol infusion (20 mg/mL titrated to a Ramsay score of 3–4) for 48 hours followed by midazolam infusion (1 mg/mL titrated to a Ramsay score of 3–4). Morphine (2.5 or 5 mg) was administered to both groups as needed to relieve patient discomfort.

Twenty-seven patients who died or were extubated within 48 hours were excluded from the analysis. In analyses that controlled for baseline differences, no sedation was associated with significantly more days without ventilation than was interrupted sedation (mean, 13.8 vs. 9.6 days in a 28-day period) and significantly shorter intensive care unit (ICU) stay (13.1 vs. 22.8 days). No differences in incidence of ventilator-associated pneumonia, unintentional extubation, or need for brain scans were noted between groups; however, agitated delirium was more frequent in the no-sedation group (20% vs. 7%).

Comment: Current management of mechanically ventilated patients focuses on adequate sedation and analgesia titrated to an agitation scale, with avoidance of neuromuscular blockade. Use of an agitation scale ensures that patients receive adequate, but not excessive, sedation. This study suggests that in the ICU, minimizing sedation might reduce ventilator time, albeit at the cost of a tripled incidence of agitated delirium. In the ED, however, postintubation sedation with analgesia usually is indicated for patient comfort and to facilitate ventilation, procedures, and ongoing resuscitation. The study's findings should not alter this practice.

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