ICU
MANAGEMENT & PRACTICE

Early Mobilisation Of Patients In ICU Improves Outcomes

Aside from the obvious and immediate health problems that patients undergoing mechanical ventilation face, those who recover often do so with profound loss of strength and mobility that can impair their daily functioning and even lead to increased risk of morbidity and mortality down the line. Now research shows that functional status may be restored earlier to ICU patients by performing daily interruptions in sedation paired with mobilisation and exercise, as led by physical and occupational therapists. The study results will be announced on May 17 at the 105th International Conference of the American Thoracic Society in San Diego.

"Weakness and loss of functional independence—the inability to transfer from bed, walk and execute typical daily self-care activities, such as cleaning and dressing oneself—are commonly experienced among patients discharged from the intensive care unit," said William Schweickert, M.D., assistant professor of medicine in the Pulmonary, Allergy, and Critical Care Division at the University of Pennsylvania Medical Center. "This can result in major disability and protracted rehabilitation and may be accelerated or exacerbated by prolonged periods of immobility, especially among patients who undergo mechanical ventilation and sedation."

"Because ICU-acquired weakness is associated with such poor outcomes and potentially exacerbated by deep sedation and immobility, we wanted to see whether mobilisation begun in the earliest days of respiratory failure would improve patient function at hospital discharge and reduce delirium," he continued.

Dr. Schweickert and colleagues conducted a randomised trial of 100 patients who were undergoing sedation and mechanical ventilation in the ICU. They compared patients who underwent a protocol of daily mobilisation in conjunction with sedative interruption with those who underwent sedative interruption alone and therapy services as ordered by their primary care team.

They found that patients who underwent the mobilisation protocol were more frequently able to get out of bed, stand and occasionally walk with assistance during mechanical ventilation. The physical regimens prescribed by the primary care team, on the other hand, often began only after mechanical ventilation was no longer needed, potentially leading to a longer loss of functional status and a longer recovery time.

The degree of functional loss in the control arm was substantial—only one third of patients left the hospital able to function independently. In contrast, nearly 60 percent of the early mobilisation patients had achieved independence.

"Overall, patients in the mobilisation group were nearly twice as likely to regain their functional independence at hospital discharge and experienced less delirium than did their counterparts who did not receive the intervention," said Dr. Schweickert.

"The benefits of pairing mobilisation and sedative interruption from the inception of critical illnesses are substantial, but the improvements in function are not easily recognisable until about two weeks," observed Dr, Schweickert, adding that "starting these therapies early can be difficult in the context of ongoing critical illness, yet the data highlights that it can be done safely. We still need to test how this intervention and its findings translate into longer-term survival and better quality of life."

Source: American Thoracic Society

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