

Active efforts to reduce time on a ventilator beneficial for patients, ICUs

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More active efforts to reduce patients' time on a ventilator in an ICU can both spare their suffering and free up intensive care resources, a thesis at the University of Gothenburg shows.

Mechanical ventilation (MV) in an [intensive care unit](#) (ICU) is often needed to save a patient's life. But prolonged stay in ICU also increase

the risks of severe complications and higher mortality.

Taking patients off the [ventilator](#) so that patients can breathe spontaneously is usually straightforward. However, prolonged weaning from MV more than a week may become complicated. The process requires individual strategies that, in turn, call for critical care nurses (CCN) and advanced skills in the care team.

The thesis explores the care of adult patients who require MV seven or more days' and, accordingly, a longer period of weaning from the ventilator. Author Carl-Johan Cederwall, Ph.D. in health and care sciences at Sahlgrenska Academy, is also an CCN at Sahlgrenska University Hospital.

"Patients receiving ventilator care for long periods are often men, but also older patients with high level of comorbidities. An [aging population](#) is therefore a challenge to [health care](#), and is going to require ICU resources in the future," he says.

CCNs key role

The thesis is based on data collected from the Swedish Intensive Care Registry and questionnaires sent out to almost all Sweden's ICUs. In-depth interviews were also conducted with 19 intensive CCNs.

The results showed that intensive care involving MV seven days or more featured in 5% of all adult ICU admissions, but occupied 32% of the number of ICU bed days.

Another aim of the thesis was to identify the patient group, care routines and presence of person-centered care during prolonged weaning. Usually, this care was individually planned and care decisions were made by the care team in collaboration.

"The CCN played a key-role in creating a working team and in prioritizing, initiating and driving the weaning process forward," Cederwall says.

Major impact on resources

In most of the ICUs examined, routines were based on person-centered care, and patient participation were lacking. Nevertheless, person-centered care was present during the weaning process. Barriers identified were lack of teamwork and lack of resources.

Shortening time on MV, combined with more effective care, would have a substantial effect in acute ICU resources. At the same time, prolonged ventilator weaning, which requires properly functioning teamwork, would probably be facilitated by being conducted separately from acute [intensive care](#), in a setting with resources for prolonged weaning, Cederwall thinks.

Striving for amore person-centered care during prolonged [mechanical ventilation](#) could make further individualization and patient participation possible, to reduce ICU stay and risks of more serious complications," he concludes.

More information: Prolonged mechanical ventilation in Swedish intensive care units: patient characteristics, prevalence, weaning and challenges in care. hdl.handle.net/2077/67650

Provided by University of Gothenburg

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