

SPECIAL SUPPLEMENT
Sedation in Critically-Ill
COVID-19 Patients

20 Lessons from 2020

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Mouth Care Challenges and the Use of the COVID-19 Oral Grading System, *J. Allen, G. Rossano, J. McRae.*



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How To Ventilate COVID-19 Patients?

TwinStream® ICU with p-BLV® (Pulsatile Bilevel Ventilation)

The Austrian critical care ventilator TwinStream® ICU was designed with the explicit purpose of saving critically respiratory-distressed patients. In particular those patients with severe lung diseases (e.g. ARDS) who can no longer be supported with conventional ventilation.

Its unique p-BLV® mode has become an established value in many Intensive Care Units in Austrian and German hospitals. And when severe multi-trauma patients are admitted the TwinStream® ICU often proves to be an effective last resort.

Since the start of the pandemic the TwinStream® ICU has become an invaluable asset in the fight against COVID-19. Prof. Dr. Thomas Uhlig, Clinic director and head of the ICU at the Lüdenscheid Clinic, Germany, explains:

Why is the TwinStream® ICU such an important asset in the fight against COVID-19?

“We ventilate all COVID-19 patients which require intubation with the TwinStream® ICU first, until we see a clear improvement of the oxygenation, because p-BLV® is much more efficient at recruiting lung volumes than other ventilation methods.

Hypercapnia is another problem we are faced with after non-invasive ventilation. With p-BLV® we can kill two birds with one stone. Its combination of high-frequency ventilation (improved oxygenation) and low-frequency ventilation (efficient CO₂ elimination) makes it our most effective ventilation method for this type of patients”.

How long are COVID-19 patients usually ventilated by the TwinStream® ICU?

“As soon as the PaO₂/FiO₂ ratio and airway pressures are again within a tolerable range, a conventional ventilator can take over. But if there is an acute deterioration, we ventilate with the TwinStream® ICU again. Our average patient is ventilated for around 14 days, of which on average around 5-7 days with the TwinStream® ICU”.

How old are the COVID-19 patients which you have ventilated so far?

“Since April we have ventilated COVID-19 patients between the ages of 20 and 85”.

Conflict of Interest

Prof. Dr. Uhlig declares no conflict of interest and has not received any funding or equipment from Carl Reiner GmbH. ■



