



## HOW TO VENTILATE COVID-19 PATIENTS?



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### **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.

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Hypercapnia is another problem we are faced with after non-invasive ventilation. With p-BLV<sup>®</sup> we can kill two birds with one stone. Its combination of high-frequency ventilation (improved oxygenation) and low-frequency ventilation (efficient CO<sub>2</sub> elimination) makes it our most effective ventilation method for this type of patients.”

**How long are Covid-19 patients usually ventilated by the TwinStream<sup>®</sup> ICU?**

“As soon as the PaO<sub>2</sub>/FiO<sub>2</sub> 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<sup>®</sup> ICU again. Our average patient is ventilated for around 14 days, of which on average around 5-7 days with the TwinStream<sup>®</sup> 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.”

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