



EVONE – SUPERIOR VENTILATION

Ventinova is a Dutch manufacturer of innovative products for patient ventilation. The company's flagship product (developed in-house) is Evone®, a sound and innovative product, which is manufactured in collaboration with another Dutch company: Unitron. The device that was developed in Eindhoven has achieved excellent results in various European hospitals over the last two years. Evone has been CE certified by DEKRA Netherlands and has been approved according to the European Directive for medical devices for use in operating theatres and intensive care units for anaesthetised patients.

New technology

The guiding principle for the design of Evone was to develop a device that is as effective as possible and that prioritises the health and recovery of the patients. The company worked on this aspect for many years. Evone is based on Ventinova's FCV® ventilation technology. FCV® is unique due to the complete control over both the inspiratory and expiratory phases. This enables Evone to create a continuous air flow in the lungs, which moves inhalation gases into the lungs in a controlled manner and exhalation gases out of the lungs in a controlled manner. Evone can be life-saving, particularly for patients in a critical condition.

EVONE CORONA FILE

The severe lung condition that can be caused by the coronavirus - also referred to in medical practice as Corona-ARDS - can result in patients requiring prolonged ventilation under anaesthesia. At the same time, the period of ventilation must be kept as short as possible to improve the chances of a full recovery. In these exceptional times, a faster recovery also means that an ICU bed will become available more quickly for the next patient.

Scientists and medical experts find themselves at the start of the discovery process into the underlying mechanisms of this new disease. The most important goal of the current ventilation strategies is to minimise the damage to the lungs caused by ventilation. The unique design of Evone is able to demonstrate its full potential here. Doctors in various European hospitals are impressed and even surprised by the results that can be achieved with Evone. One German doctor responded on Twitter on 25 March: 'First case on FCV® yesterday had a surreal increase in gas exchange!'

As of 14 April, there are seventeen COVID-19 patients with ARDS who are or were ventilated with Evone. The first observations are very promising:

- In just the first 24-30 hours, the Horowitz Index – an important measure for the effectiveness of ventilation of a patient – increased by 60% to 150% in five patients.
- These patients can now be ventilated whilst lying on their backs, meaning that the nursing staff do not need to regularly turn the patients.
- No adverse effects have been reported on the use of Evone.

Of course, it is too early to draw conclusions but the results are completely in line with the previously described effects delivered by the FCV® ventilation method:

- Negative effects of ventilation are reduced
- The ventilation is more efficient and results in improved lung function and a more homogenised air flow in the lungs than with use of conventional methods
- Can be used to optimise the ventilation on an individual basis and improve lung function.

EVONE IN DETAIL

FCV® – full control of ventilation

FCV® works with Ventinova's new FCV® ventilation technology, which is unique due to the complete control over both the inspiratory and expiratory phases. This results in a linear increase and decrease in pressure in the airway. In addition, Evone creates a continuous flow of air in the lungs, which moves inhalation gases into the lungs in a controlled manner and exhalation gases out of the lungs in a controlled manner. This constant flow without ventilation pauses results in optimum and efficient ventilation of the lungs.

More efficient

Evone ensures that the alveoli and bronchi remain open, which facilitates the oxygen absorption in the blood. The continuous flow of air also improves the gas exchange and the gas mixture in the lungs. All these factors combined make the FCV® ventilation technology more efficient and much less harmful to use.

More stable

FCV® is based on a controlled, stable flow in which the pressure at the top of the ventilation tube is just high enough to create a linear increase in the intratracheal pressure during inspiration and pressure that is just low enough to result in a linear decrease during expiration.

Ventinova Medical B.V.

A Meerenakkerplein 7
Nederland

T + 31 (0)40 751 60 20
E info@ventinova.nl

VENTINOVA & UNITRON PARTNERSHIP IN SUMMARY

The collaboration between Ventinova and Unitron extends far beyond the development and production: it includes the funding, supply chain, further development and even communication. A successful practical example of a Dutch integrated production chain.

This is a collaboration with added value in the current crisis, with the sudden increase in demand for ventilation equipment. Due to the fantastic commitment by motivated supply chain partners and dedicated stakeholders, we are able to supply more devices without compromising on safety or quality.

Over Ventinova

Ventinova Medical BV is a Dutch company specialised in innovative ventilation products. The company has been working on the disruptive ventilation method FCV® since 2008, with a prototype marketed in 2010 and a complete concept since 2018. This technology controls both the inspiratory and expiratory phases of mechanical ventilation and this is extremely effective. Ventinova has 21 employees working from its head office in Eindhoven to export its products to 22 countries worldwide. Also visit www.ventinovamedical.com and www.ventinovamedical.com/covid-19-update/

About Unitron

Unitron is a Dutch company that works as a production partner for medical global players who aim to tackle the status quo in healthcare. With more than sixty professionals employed at the facilities in IJzendijke and Hengelo, Unitron has spent more than thirty years working towards a world in which patients receive optimum care thanks to the best technology. The company produces high-end life science products in line with medical regulations in a flexible and efficient manner. Ventilation is one of Unitron's many points of expertise, where they develop innovative and CE-certified products in the medical field. As a committed partner, the company does everything within its power to deliver significant innovations. Also visit www.unitron.nl.

Ventinova, Unitron, Evone and FCV are registered trademarks.

Ventinova Medical B.V.

A Meerenakkerplein 7
Nederland

T + 31 (0)40 751 60 20
E info@ventinova.nl