

PRESS RELEASE

Weinmann's MEDUMAT Transport offers multi-faceted usage

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Non-invasive ventilation in emergency medical services – a good alternative

Fulda – Non-invasive ventilation in emergency medicine is gaining ground in Germany. Recent studies have shown that non-invasive ventilation (NIV) for certain illnesses is a reasonable and reliable alternative to conventional ventilation. In its emergency and acute-care transport ventilator MEDUMAT Transport, the Hamburg-based firm Weinmann offers up to eight different pre-set ventilation modes and a non-invasive mode which can be activated in all ventilation modes.

In an observational study Dr. Clemens Kill (Marburg) showed that a simple CPAP system for non-invasive ventilation of emergency care patients with severe respiratory insufficiency is a reasonable and reliable alternative to conventional ventilation. He was able to prove that CPAP therapy can be used safely and successfully in pre-hospital situations in rescue vehicles. Observations were made of 142 patients with acute respiratory insufficiency and an average age of 77.2 years while they were being transported in an emergency physician's vehicle and were being treated with standard drugs and CPAP (Continuous Positive Airway Pressure) therapy. Despite an oxygen saturation of only 82% under very conservative therapy, only 10 (7%) of patients had to be intubated and treated with invasive ventilation. The results show that non-invasive ventilation in emergency medical services is a very good alternative to conventional ventilation for certain disorders.

Time gained for conservative therapy

According to Kill's study, non-invasive ventilation is particularly advantageous for patients with acute left heart decompensation and cardiac pulmonary edema (also known as congestive heart failure) and for patients with acute bronchial obstruction. A suitable mode of non-invasive ventilation can improve gas exchange in these patients. The process saves time, during which drug treatment for the underlying disease can be administered. While patients with left heart decompensation benefit most from the use of CPAP, patients with hypoventilation caused by obstruction generally require support of their own breathing. Kill's observations suggest that non-invasive ventilation by means of BIPAP (Biphasic Positive Airway Pressure) is very good in this case because the patient's spontaneous breathing is maintained and the regular switching between upper and lower pressure levels generates additional breaths with greater tidal volume.

Innovative concept for MEDUMAT Transport

In the emergency and transport ventilator MEDUMAT Transport, the medical technology company Weinmann has implemented an innovative concept that guarantees high-quality and reliable ventilation for primary and secondary care. This ventilator features emergency modes and operating modes for differentiated ventilation. MEDUMAT Transport thus offers all the potential uses of a state-of-the-art hospital device. SPV (Smart Pressure Ventilation) and SVV (Smart Volume Ventilation) are platforms that provide the ventilation specialist with all setting options so they can respond quickly to the needs of the patient and generate exactly the right ventilation mode. A variety of familiar, pre-configured ventilation modes can be selected from the mode menu. The device offers a total of eight different modes – PCV, BiLevel, CPAP, ASB, SIMV, IPPV, SVV, SPV and the NIV function, which can be activated in all ventilation modes.

Even less-experienced users can quickly, simply and safely use the emergency mode, which is equipped with pre-settings for toddlers, children and adults. After the device has been switched on, the selections can be made immediately via the three keys to the left of the monitor. No time is lost to clicking through menu levels or pressing other buttons. The device automatically activates the ventilator parameter settings stored in MEDUMAT Transport for the selected patient group. This process increases patient safety in emergency situations and prevents user errors. In effect, the pre-selected parameters are device software recommendations that allow emergency ventilation to be started immediately and without delay. The user can quickly make adjustments for specific requirements in unusual cases by turning the control dial. If necessary, the user can also make changes to the basic settings in the device's configuration menu.

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Background: Weinmann

Weinmann Geräte für Medizin GmbH + Co. KG concentrates on its product lines Homecare, Emergency and Diagnostics. In these areas the Hamburg-based family business offers diagnostic, therapeutic and also life-saving devices and system solutions of the highest quality. Today it is in the hands of the Griefahn and Feldhahn families and its headquarters have been located in Hamburg-Stellingen since 1977. Today the company has about 550 employees. With more than 100 patent families and 90 trademarks, Weinmann is among the leading providers of medical devices for home care, diagnostics and emergency medicine in Germany. Sales in 2007 were 65.5 million Euros.

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