MONNAL T60

Decide calmly, Ventilate serenely.

Air Liquide HEALTHCARE

Monnal™ TEO is an easy-to-use solution allowing healthcare professionals to make decisions quickly and precisely.

Thanks to its advanced monitoring and its automated functional exploration maneuvers, **Monnal™ TEO** allows ventilation to be personalized according to the respiratory mechanics of the patient.

Made in France

Monnal™ TEO is the ventilator designed and manufactured in France intended for intensive care units and critical care services.

Easy to use and intuitive

Monnal™ TEO is characterized by its ease of use and allows healthcare teams to quickly familiarize themselves with the ventilator . Its 15" capacitive technology touch screen allows quick reading of key elements for patient care, with essential information accessible on a single page. The interface can be customized to adapt to the protocols of each department.

Dynamic help windows

For every modification of the ventilation setting, the user is accompanied by instant graphical and digital assistance, so as to prioritize protective ventilation for the most critical patients.

Customizable interface

The user has the possibility to choose the number and type of curves to display and whether or not to associate them with loops.

The display allows the presence of 3 curves, 4 curves, 2 curves and 2 loops, or 1 simple loop. These are completely customizable according to the preferences of the department where Monnal™ TEO is used.

10 monitoring parameters are always displayed during ventilation.

The default ventilation instructions can also be **completely personalized to be adapted to the intensive care unit**.

15" capacitive technology touchscreen

Investigate respiratory physiology at bedside

Monnal™ TEO allows one touch access to advanced functionalities for exploring respiratory mechanics, making it easier to make decisions adapted to each patient.

Direct and automatic calculation of Static Resistance and Static Compliance: **assess the patient's respiratory mechanics and monitor its evolution** throughout the therapy

Maneuvers **to assess the respiratory effort** of the patient, particularly while weaning **from mechanical ventilation**: P0.1, NIF, RSBI.

Monnal™ TEO is compatible with the measurement of esophageal and transpulmonary pressure.

The signal from the esophageal probe connected to Monnal™ TEO can be used to monitor the evolution of the patient's esophageal pressure (Peso) and transpulmonary pressure (PLung) in the form of curves and to retrieve the associated measurements using the cursors.

For a passive patient:

- Helps to understand the patient's respiratory mechanics
- Know the pressure that distends the lungs (transpulmonary pressure), potentially harmful to the patient if excessive.

For an active patient:

- Estimate the patient's effort
- Detection of asynchronies between the ventilator and the patient.

Designed for protective ventilation

Monnal™ TEO offers comprehensive and advanced monitoring in order to help physicians deliver safe, protective ventilation to the most critical patients.

- Static and dynamic compliance: measurement of static compliance (Cstat).

- Static and dynamic Resistance measurements: estimation of dynamic resistance (Rdyn).

Monitoring adapted to the delivery of protective ventilation based on international guidelines:

- **Vte/PBW**[1] → **Vt = 6 ml/kg x PBW**
- **Driving pressure**[2] → **DP < 14 cmH_2O**
- **Plateau pressure**[3] → **Pplat < 30 cmH_2O**

1. Ventilation with Lower Tidal Volumes as Compared with Traditional Tidal Volumes for Acute Lung Injury and the Acute Respiratory Distress Syndrome. The New England Journal of Medicine. 2000;8.
2. Amato MB, Meade MO, Slutsky AS, Brochard L, Costa EL, Schoenfeld DA, Stewart TE, Briel M, Talmor D, Mercat A, Richard JC, Carvalho CR, Brower RG. Driving pressure and survival in the acute respiratory distress syndrome. N Engl J Med. 2015 Feb 19;372(8):747-55.
3. Bellani, G. et al. Epidemiology, Patterns of Care, and Mortality for Patients With Acute Respiratory Distress Syndrome in Intensive Care Units in 50 Countries. JAMA 315, 788 (2016).

Air autonomy

The turbine technology of Monnal™ TEO gives it air autonomy, as well as **versatility**, allowing it to be used outside intensive care units. Monnal™ TEO only needs a supply of oxygen (high or low pressure) to enrich the mixture of gases delivered to the patient. Thanks to its turbine, ventilation is maintained even in the event of an oxygen shortage.

- **Rapid pressure rise: 200 cmH_2O/s** to best meet the patient's inspiratory demand

Monnal™ TEO: a device that fits into the hospital ecosystem

Monnal™ TEO is equipped with HL7* connectivity, enabling it to communicate with various interfaces within the Hospital Information System.

* Available in 2024

ALMS's environmental approach

Our responsible actions for the environment

ISO 14001 certification for the implementation and monitoring of its Environmental Management System at the Antony site. The renewal of this certification **since 2015** is an evidence of the commitment of both staff and management to sustainable development issues.

Made in France

Monnal™ TEO is a ventilator entirely designed and manufactured in France. Over 20% of the components used in the design of Monnal™ TEO are recyclable

For more information, go and visit our website:

Contact

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Monnal™ TEO is a class IIb air-autonomous, blower-powered ventilator used to treat infants (3 kg and above), children, and adults. It is used for patient ventilation to compensate for or mitigate respiratory failure. The ventilator is intended for hospital staff (doctors, nurses, etc.) in resuscitation units, intensive care, in emergency units, in post-operative recovery rooms, for transportation within a hospital.

Manufactured by Air Liquide Medical Systems - Conformity assessment: GMED 0459 - Commercial code: R.C.S. Nanterre 348 921 735 - Please read the user manual carefully.

Air Liquide Medical Systems is committed to an environmental approach with a quality-environment management system certified ISO 14001:2015.

YN24236_IND 1_2024-01_HospitalventilationEN_Brochure Monnal TEO - Photos : ALMS - Design CHANH THI