

COVID-19

We Suggest the best solution for respiratory therapy

COVID-19 Pneumonia

Different Respiratory treatment to different phenotypes?

TYPE 1 (TYPE "L")

- Low Elastance (i.e. High Compliance)
- Low Ventilation to perfusion ratio
- Low Lung weight
- Low Recruitability

Before ICU, in non-intubated patients

HFNC and NIV are the first-line treatment when an overwhelming number of patients come to a hospital. These interventions, often applied outside the ICU in emergency rooms or in other medicine wards, usually improve blood oxygenation. A key aspect of care, however, should be the assessment of respiratory drive and the inspiratory efforts. The ideal indicator would be the measurement of the esophageal pressure swings. If impossible, the clinical signs of inspiratory efforts should be carefully scrutinized. If respiratory distress is present, endotracheal intubation should be strongly considered to avoid/limit the transition from type 1 to type 2 by self-induced lung injury.

TYPE 2 (TYPE "H")

- High Elastance
- High Right-to-left shunt
- High Lung weight
- High Recruitability

In ICU, Intubated patient

[Type1 Patient]

- PEEP levels should be kept lower in patients with high pulmonary compliance
- Tidal volume thresholds should not be limited at 6 ml/kg
- Respiratory rate should not exceed 20 breaths/min
- Patients should be left "quiet"; avoiding doing too much is of higher benefit than intervening at any cost.

[Type2 Patient]

Standard treatment for severe ARDS should be applied (Lower tidal volume, Prone positioning and relatively high PEEP)

Gattinoni L. et al. (2020) Intensive Care Medicine; DOI: 10.1007/s00134-020-06033-2

Powerful weapon to combat COVID-19 MTV1000 Ventilator

Before ICU, In non-intubated Patients

HFNC (O2 Stream mode)

-15 ~ 60 L/min

CPAP (Spont mode)

-0 ~ 50 cmH2O

BiPAP

-0 ~ 60 cmH2O

(PEEP+PSV < 100cmH2O)



In ICU, Intubated Patients

PRVC, PRVC-SIMV, V-ACV
V-SIMV, PACV, P-SIMV, AUTO

Tidal Volume 50~2500 mL

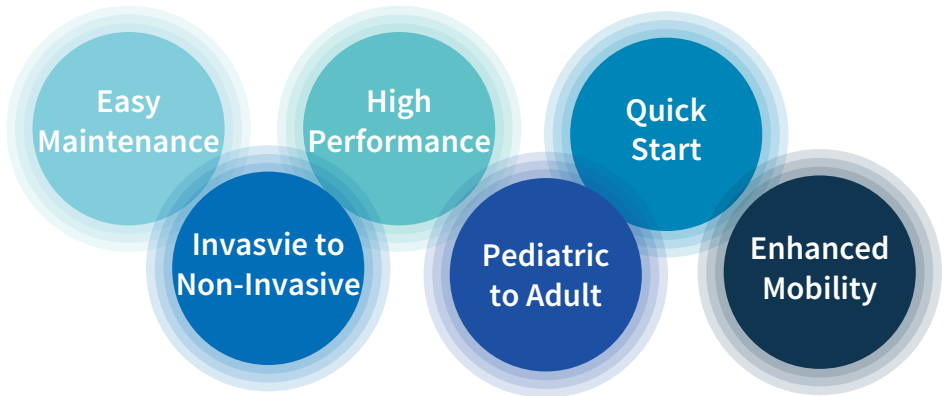
Inspiratory Pressure 5~80cmH2O
(PEEP+Pins < 100cmH2O)

Respiratory rate 0~120BPM

FiO2 21~100%

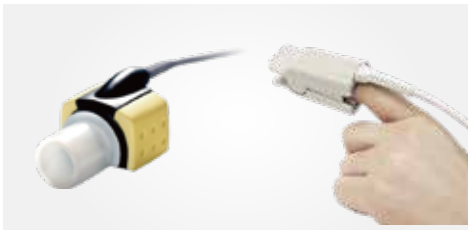
Portable Ventilator

MTV1000 Highlight



Fully Featured Ventilator

ICU Grade Ventilator
 Monitoring FiO2, option SpO2 & EtCO2,
 Electronic PEEP and Blender control
 Built-in Air generator - Turbine blower type
 Built-in rechargeable Battery
 Dual & Single Limb circuit applicable



SpO2, EtCO2 Measurements Hemodynamics

This option can provide information of metabolic CO2 and SpO2 as the result of respiration. This information can be useful to a clinician for patient care without independent gas monitoring system and for reducing complete dependency on Arterial Blood Gas Analysis (ABGA).

Successful Weaning with variety Modes

O2 Stream : T-Piece Trial
 O2 Stream : High Flow Nasal Cannula

Ventilator with Nebulization System

MTV1000 offers Pneumatic nebulizer System

Configuration



- 1 Alarm LED
- 2 7" Color Touch Screen
- 3 SpO2, EtCO2 Option modules
- 4 Exhalation Value Assembly
- 5 Low Flow Oxygen Inlet
- 6 High Pressure Oxygen Inlet

Mode

MTV1000 is an ICU-grade ventilator designed for mobility. The essential functions and high performance of system can save your efforts for patient care

Standard Ventilation Modes

PACV, PSIMV, VACV, VSIMV
 Spont, PRVC, Auto-Mode
 Apnea Back-up ventilation, O2 Stream

Additional Option

Accessory : Proximal Pressure Sensor
 Nasal Cannula for O2 Stream
 Vital Sign Function : SpO2, EtCO2

