CARESCAPE R860 Ventilator

Intuitive, individualized ventilation

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SIMPLIFIED WORKFLOW

- Intuitively organized and **easily accessible data**
- Relevant **clinical content and therapy controls** at your fingertips
- **Individualized Weaning** support

LUNG PROTECTION

- Easy-to-use lung protection tools **measure functional residual capacity** (FRC)
- Provides data to help determine **optimal PEEP settings**
- Delivers appropriately tailored tidal volumes for each patient

NUTRITION MANAGEMENT

- Nutrition is critical in ICU patient recovery and has been shown to decrease ICU length of stay[1]

NEXT STEPS
Clinical decision support

CURRENT STATUS
Patient status & settings

HISTORY
Patient trends

1 - Ang, Darwin, et al. "Optimizing Energy Expenditure and Oxygenation toward Ventilator Tolerance Is Associated with Lower Ventilator and Intensive Care Unit Days." Journal of Trauma and Acute Care Surgery, vol. 87, no. 3, 2019, pp. 559–565., doi:10.1097/ta.0000000000002404.

Simplified user interface with swipe-screen navigation

In an evaluation* of six ICU ventilators, the CARESCAPE R860 ventilator:

- Required the lowest level of mental workload
- Induced less clinicians' physiological parameter modifications
- Ranked in the top 2 for both usability score & objective task completion rate

* Marjanovic, N. S., Simone, A. D., Jegou, G., & L'Her, E. A new global and comprehensive model for ICU ventilator performances evaluation. Annals of Intensive Care. 2017; 7:68

Navigate past, present and future

Swipe left to right to navigate from historical trends to clinical decision support tools and back again.

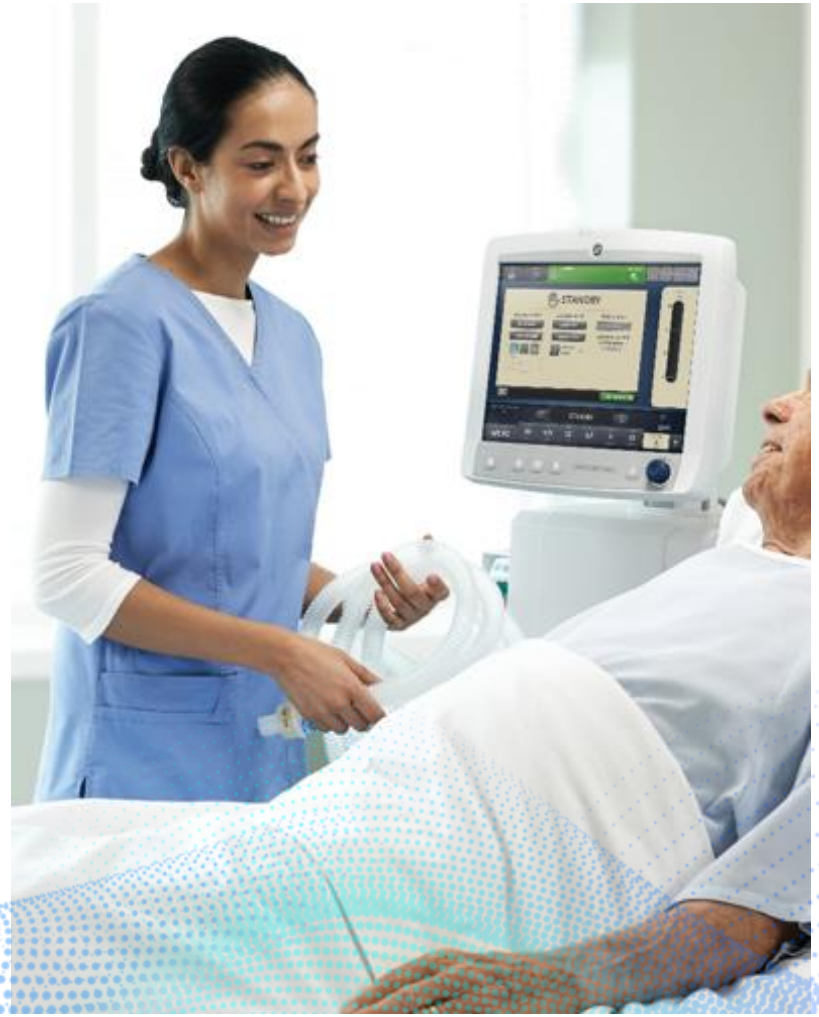
Keep your focus on your patient

Interactive touchscreen with intutitive controls reveals current and trended data that supports your decisions when planning patient therapy for lung protective ventilation, metabolics and weaning.

Focus on event-centric data in the past to help you plan future therapy.

Simplify clinical workflows with Advanced tools

- **Automated support** for weaning with a Spontaneous Breathing Trial mode, including clinician-set stop criteria
- Options to support your **Lung Protective Ventilation strategy**
- Integrated tools to help you support **Nutrition Therapy** needs
- **Single-patient use accessories** to reduce reprocessing efforts



Advanced tools: Weaning support

Prolonged ventilation is associated with a host of complications that can have significant health and cost implications.[1]

Did you know?

Mechanical ventilation is often associated with prolonged weaning process, with

41% of mechanical ventilation time spent weaning patients.[2]

Spontaneous Breathing Trial (SBT) is a mode of ventilation that allows clinicians to administer trials in a consistent manner while providing continuous trending and documentation of results.

1. Bronagh Blackwood, Fiona Alderdice, Karen Burns, Chris Cardwell, Gavin Lavery, Peter O'Halloran "Use of weaning protocols for reducing duration of mechanical ventilation in critically ill adult patients: Cochrane systematic review and meta-analysis.", BMJ, vol. 342, 2011.
2. Esteban A et al. "Modes of Mechanical Ventilation and Weaning" Am J Respir Crit Care Med 1994; 106:1188-1193

Advanced tools: O_2 Therapy

The CARESCAPE R860 ventilator has an integrated mode for O_2 Therapy, which means fewer pieces of equipment are required at the bedside.

Even use dual-limb circuits, so there is no need to switch accessories when transitioning from Mechanical Ventilation to O_2 Therapy.

Trendlines
Track patient progress — helpful for staff shift changes

Mode Menu

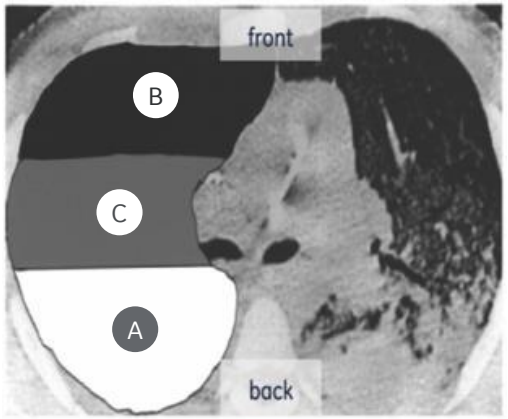
Circuit Pressure Bar Graph
Can indicate occlusions before patients de-saturates

Advanced tools:
Lung Protective Ventilation

Patients affected by lung disease are highly susceptible to ventilator associated lung injury.[1] A lung protection strategy can help ensure that different lung zones receive the treatment required.

Did you know?

Approximately **24%** of all patients mechanically ventilated will develop Ventilator Induced Lung Injury (VILI) for reasons other than ALI or ARDS.[2]



Lung Zone	Clinical Need
A Atelectasis	▶ Keep the lung open[3,4,5]
B Baby healthy lung	▶ Reduce tidal volume[5,6]
C Cyclic opening / closing	▶ Stabilize the lung (PEEP)[7]

1. E. D. Moloney and M. J. D. Griffiths, British Journal of Anesthesia 92 (2): 261+/-70 (2004)
2. International consensus conferences in intensive care medicine: Ventilator-associated Lung Injury in ARDS. Cosponsored by the American Thoracic Society, The European Society of Intensive Care Medicine, and the Societé de Réanimation de Langue Française. July 1999. Am J Respir Crit Care Med 1999; 160:2118.
3. Hedenstiernia G, Acta Anesthesiol Scand 2012, 56: 675-685
4. Gattinoni L, N Engl J Med 2006;354:1775-86
5. Brunner J, Intensive Care Med. 2009, 35:1479-83
6. Rouby JJ, Anesthesiology 2004; 101: 228–34
7. Gattinoni L, Current Opinion in Critical Care 2004, 10:272–278

Advanced lung protection software*

To help protect a patient's lungs, this intuitive lung protection software supports clinicians with data to calculate FRC, determine optimal PEEP settings and deliver appropriately tailored tidal volumes you set for each patient.

- FRC INview™ Software
- SpiroDynamics™ Software**
- PEEP INview ™ Software
- Vd/Vt

* Unlocking the full potential of the software on the CARESCAPE R860 requires the CARESCAPE Respiratory Module. This measures inhaled and exhaled gasses which the physician can use to assess a patient's status.
** SpiroDynamics tool requires a catheter .

Advanced tools: Indirect Calorimetry

CARESCAPE Respiratory Module measures inhaled and exhaled gases, which the clinician can use to assess a patient's nutritional needs.

Did you know?

Approximately **40-50%** of patients, particularly those in the Intensive Care Unit (ICU) have a moderate to severe degree of malnutrition.[1,2]

Indirect Calorimetry (IC)* parameters are measured and calculated, not estimated. Proper nutrition may help improve patient outcomes, reduce infection rates and shorten the length of stay in the ICU.[3]

*IC is considered the gold standard to measure caloric needs in critically ill patients at bedside, and its use has been strongly recommended by the recent European Society for Clinical Nutrition and Metabolism (ESPEN) and American Society for Parenteral and Enteral Nutrition (ASPEN) guidelines.[4]

1. Delgado, Artur et al. "Hospital malnutrition and inflammatory response in critically ill children and adolescents admitted to a tertiary intensive care unit." CLINICS 2008;63:357-62
2. E. D. Moloney and M. J. D. Griffiths, British Journal of Anaesthesia 92 (2): 261±70 (2004)
3. Souba, W. Nutritional support. N Engl J Med 1997; 336: 41. | Dasta J, McLaughlin T, Mody S, et al. Daily cost of an intensive care unit day: the contribution of mechanical ventilation. Crit Care Med 2005 Vol. 33, No. 6, pgs 1266 71. | Rubinson L, Diette GB, Song X, Brower RG, Krishan JA. Low caloric intake is associated with nosocomial bloodstream infections in patients in the medical intensive care unit. Crit Care Med 2004; 32(2): 350-356.
4. Moonen et al. Energy expenditure and indirect calorimetry in critical illness and convalescence: current evidence and practical considerations, Journal of Intensive Care 2021 9:8

Advanced tools to help reduce Length of Stay (LOS) through optimizing respiratory & nutrition support

Lung Protective Ventilation Tools

- Optimize PEEP settings with Functional Residual Capacity measurement
- Visualize lung compliance with intratracheal pressure measurement
- Easily access important patient data with integrated ventilation calculations

Nutritional Assessment Tools

Indirect calorimetry to assess energy expenditure to help your team provide customized nutritional support

May lead to improved outcomes[1]

- ↓ 3.2 **days** on ventilator
- ↓ 2.6 **days** in ICU
- ↓ 3.5 **days** in hospital
- ↓ 13.6% **complications**

1 - Ang, Darwin, et al. "Optimizing Energy Expenditure and Oxygenation toward Ventilator Tolerance Is Associated with Lower Ventilator and Intensive Care Unit Days." Journal of Trauma and Acute Care Surgery, vol. 87, no. 3, 2019, pp. 559–565., doi:10.1097/ta.0000000000002404.

Single-patient Use Accessories

Integrated patient safety by design

Why switch to single-patient use components?

The GE Healthcare precision flow sensor for single-patient use delivers the same speed and control you're used to with the reusable flow sensor.

Exhalation Valve Assembly

Infection control

Single-patient use accessories reduce the risk of cross-contamination.

Precise

Innovative digital communication, sensing tidal volume from pediatrics to large adults.

Workflow efficiency

No sterilization or assembly required, which could lead to time and cost savings.

Flow sensor

Clean. Consistent. Controlled.

Reduce the risk of infection and provides precise flow for every patient.

Neonatal option: Specialized care for the tiniest patients

With the CARESCAPE R860 ventilator validated to treat the most vulnerable patients, special color-coding* distinguishes this NICU option from other ventilators in your fleet.

Specialized ventilation modes help transition neonatal patients off of mechanical ventilation

- Volume Support – helps support spontaneous breathing
- nCPAP – stimulates the baby to breathe and can help prevent re-intubation[1]

Advanced monitoring capabilities due to proximal flow sensor

- Inspiratory and expiratory volumes
- Leak & trigger compensation
- ml/kg displayed on ventilator screen

High Flow Oxygen Therapy

Ability to deliver up to 12 L/min of humidified O_2

* Excludes O2 Therapy mode

1. P G Davis and D J Henderson-Smart. Nasal continuous positive airways pressure immediately after extubation for preventing morbidity in preterm infants, 2003;(2):CD000143. doi: 10.1002/14651858.CD000143.

Sustainable cost of ownership & reliability

1. **Preventative maintenance**
   Design of ventilator engine only requires a software update; no preventative maintenance kit to purchase

2. **Non-depleting O_2 sensor**
   Not scheduled to be replaced over the life of the ventilator

3. **Designed to support easy maintenance**
   The solid state ventilator engine electronics with Z-axis assembly has no hoses. Gasses are channeled through manifolds.

4. **Simple repairs of ventilator engine parts** due to location of components that are individually labeled on the main manifold.

Minimize downtime and be ready for your next patient

GE Healthcare experts stand ready to support you with flexible service offerings to fit your workflow and budget. From support for your in-house biomedical team to comprehensive service agreements, we can help you choose a plan that complements your staff's expertise with our GE Healthcare engineers, so you can schedule reliable care throughout the life of your machine.

Ventilator Overview

- A 360° Alarm light
- B 15" Touch display
- C Integrated keypad & trim knob
- D Optional airway module bay
- E Inspiratory safety guard
- F Exhalation Valve Assembly*
- G Dovetail to support adjustable mounting rail (on both sides)
- H Locking casters (all wheels lock)
- I Exhalation Valve Heater (optional)

* available in reusable and single-patient use options

Did you know?

The system can be opened and still be operational for easy troubleshooting.

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