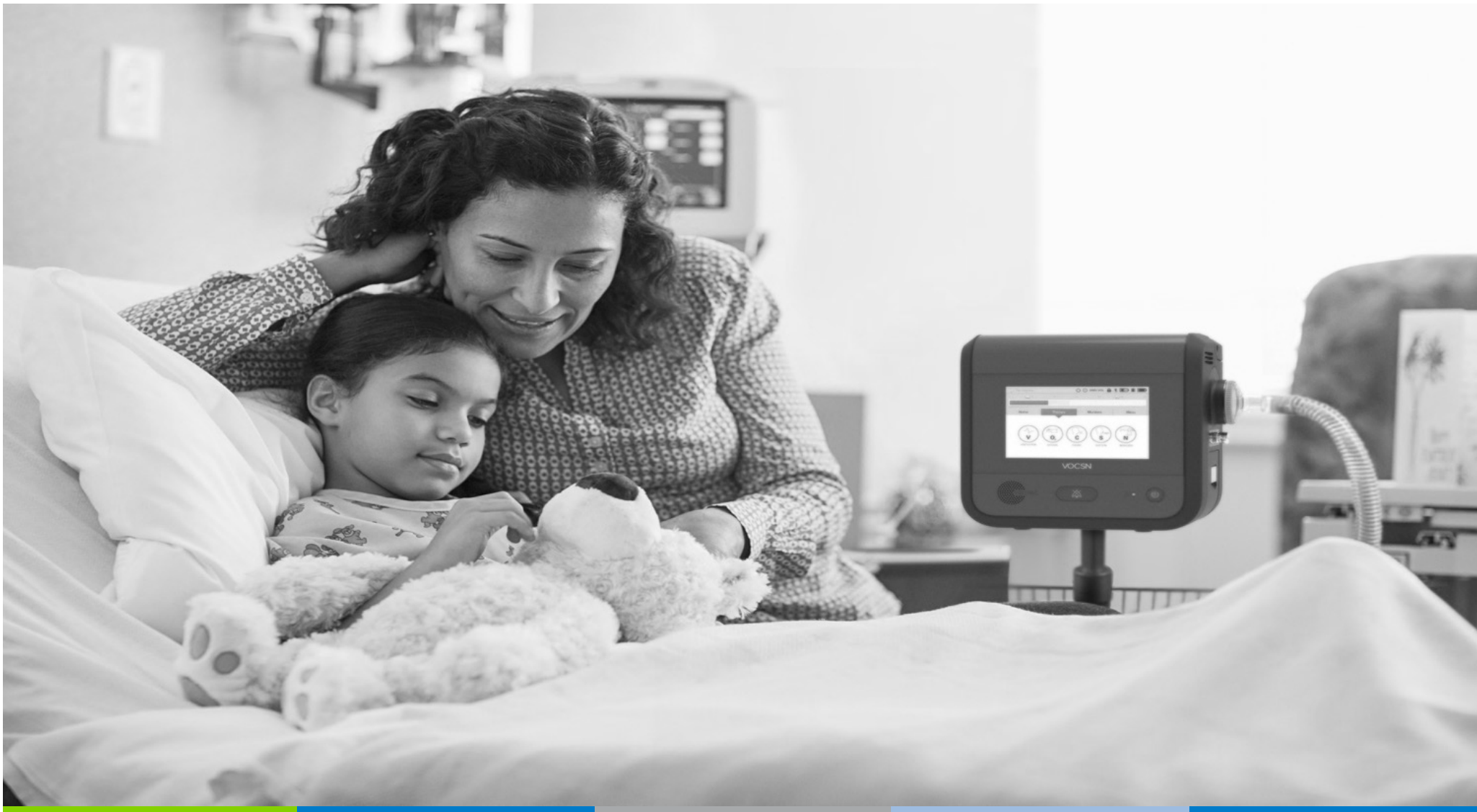




VOCSN Multi-Function Ventilator

Defining Integrated Respiratory Care





Ventec Life Systems

Experienced team with record of success



- Founded in 2012 by Doug DeVries, creator of the LTV
- History developing 18+ FDA cleared ventilators
- 80+ issued patents, collectively, for technologies prior to and not related to Ventec



Medical Conditions

Ventilator patients include a spectrum of diseases and conditions

Any patient that needs a ventilator plus one additional therapy may benefit from **Integrated Respiratory Care with VOCSN**

Neuromuscular Disease

ALS, Post Polio, and Muscular Dystrophies including Myotonic, Duchenne, Becker, and Limb-girdle

Spinal Cord Injury

Complete and incomplete spinal cord injuries

Impaired Lung Function

Lung Cancer, COPD, Emphysema, Cystic Fibrosis, and Acute Respiratory Distress Syndrome (ARDS)

Pediatric Development Complication

Complications of Prematurity, Bronchopulmonary Dysplasia (BPD), Chronic Lung Disease (CLD), Tracheal Malacia

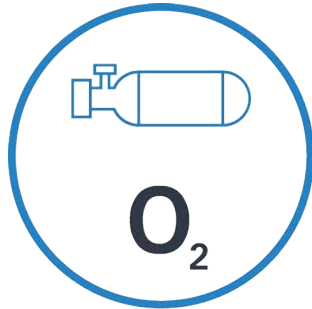


Typical Respiratory Equipment

Ventilator patients usually require numerous medical devices



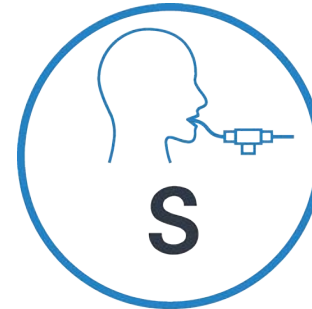
VENTILATION



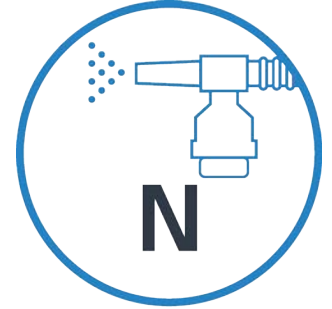
OXYGEN



COUGH



SUCTION



NEBULIZER



VOCSN: Five therapies. One device.

VOCSN is the first device to integrate five machines into a single device



Ventilator
12.4 lb



Portable
Oxygen
Concentrator
18.4 lb



Cough
Assist
9.4 lb



Nebulizer
3.3 lb



Suction Unit
11.4 lb

VS



55_{lb}

5 machines | Multiple circuits

18_{lb}

1 machine | 1 circuit



BEFORE VOCSN



AFTER VOC SN



Challenges of Traditional Devices

VOCSN addresses three common challenges in respiratory care

1

Complex and time consuming

Administering patient care using five devices takes time, creates undue stress for caregivers, and increases the risk for mistakes. Consequently caregivers spend more time managing equipment and less time interacting with patients. Additionally, each device requires specific training to use and regular maintenance to keep working.

2

Limited portability

Ventilator patients wishing to leave their home are often required to transport more than 55 pounds of equipment as well as numerous accessories and multiple extra batteries. Patients are typically confined to their homes due to the logistical burden and power needs of their life-support equipment.

3

Difficult to switch between therapies

Switching between five devices to provide therapies is time consuming and uncomfortable. For example, a patient with a spinal cord injury needing to complete a cough therapy must complete three steps. First, caregivers disconnect the patient from the life support ventilator. Second, the patient is connected to the cough assist device using a separate patient circuit. Third, once the therapy is complete, the patient must reconnect to the ventilator. Switching between devices may take up to 15 minutes, require as many as two caregivers to complete, and expose the patient's airway to the risk of infection.



VOCSN Multi-Function Ventilator

Overview



Hospital to Home



Pediatric to Adult



Fully Customizable

VOCSN adapts with patient needs



2017



2018

FDA 510(k) Clearance in United States and PMDA Approval in Japan



Critical Care Ventilator



- **CRITICAL CARE:** VOCSN meets the rigorous ISO international standard for safety and accuracy
- **COMPREHENSIVE:** Combines best in class technology for invasive, non-invasive and mouthpiece ventilation across a comprehensive set of modes and settings
- **COMPENSATION:** Powerful integrated leak and circuit compensation allow for more accurate ventilation and comfortable breathing





6 L/min Internal Oxygen Concentrator



- **INTERNAL CONCENTRATOR:** Internal oxygen concentrator capable of delivering the equivalent of 6 L/min of oxygen or up to 40% FiO₂
- **OXYGEN SOURCES:** 3 sources of oxygen including: internal oxygen concentrator, external high-pressure, and low-pressure
- **OXYGEN DIRECT:** The Oxygen Direct system is three times more energy efficient than existing concentrators, which significantly decreases the size of the oxygen concentrator and maximizes battery life
- **ONBOARD FIO₂ MONITOR:** The VOCSN onboard FiO₂ monitor verifies accurate oxygen delivery





Touch Button Cough



- **TOUCH BUTTON:** Cough therapy at the touch of a button delivered in seconds rather than minutes
- **VENTEC ONE-CIRCUIT:** No more switching between devices using multiple circuits
- **BREATH SYNC:** VOCSN monitors patient breathing and triggers a cough at a natural point in the breathing cycle



Hospital Grade Suction



- **HIGH FLOWS:** Hospital grade suction system that provides consistent high flows throughout the entire suction experience
- **QUIET:** More than three times quieter than traditional suction machines
- **VENTEC TRAVEL CANISTER:** 300mL detachable travel canister allows suction on the go



High Performance Nebulizer



- **FLOW COMPENSATION:** VOCSN automatically compensates for the airflow from the nebulizer drive to ensure accurate ventilation and comfortable breathing
- **PROGRAMMABLE AUTO-OFF:** Nebulizer automatically turns off when the therapy duration is complete
- **NOISE MUFFLER:** Sound muffler technology makes the nebulizer drive two times quieter than traditional nebulizer systems





Touch Button Cough Therapy

Integrating ventilation and cough versus traditional devices



VENTILATION



COUGH

- **Reduce Anxiety:** Reduce patient anxiety by ensuring uninterrupted ventilation, because patients should not have to disconnect from their ventilator to cough.
- **Save Time:** Save time by providing Cough therapy in seconds rather than minutes.
- **Reduce Risk of Infection:** May reduce the risk of infection by eliminating the need to frequently disconnect the patient circuit.
- **Increase Compliance:** Increase the use of cough therapy by making it mobile and simpler to use.
- **Humidity with Cough:** Using the Humidifier Bypass, VOCSN is the first system to deliver humidified coughs to patients using heated circuits.



- **Maintain Oxygen Saturation:** Using external high-pressure sources, VOCSN is the first system to deliver cough therapy with supplemental oxygen during inhalation.
- **Uninterrupted Ventilation:** Patients will never again be disconnected from their life support ventilation to cough. Every breath is supported.

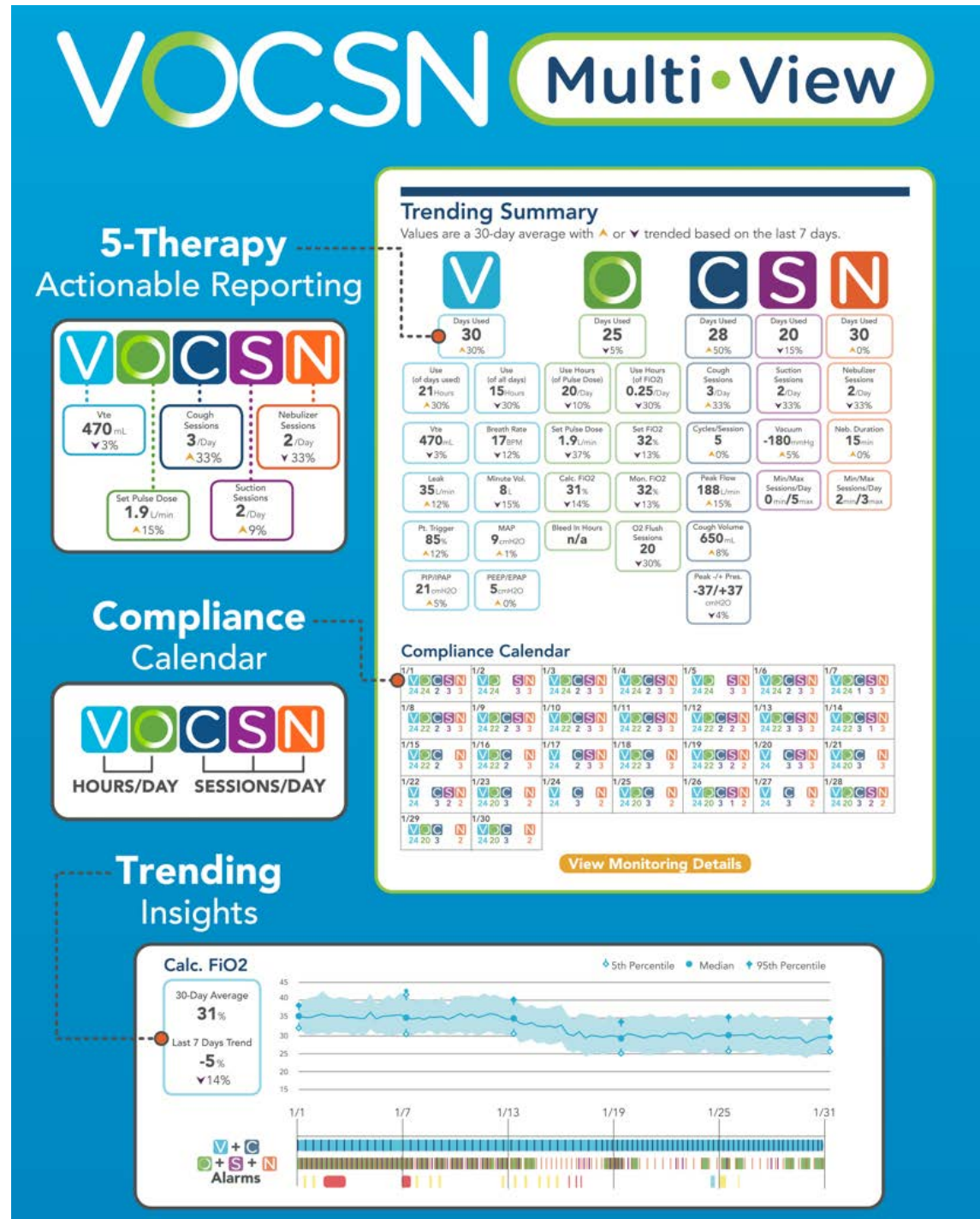


Therapy Tracking

Validating Use and Benefit

First comprehensive reporting solution for ventilator-dependent patients

- Therapy Compliance Reporting
- Therapy Use Trending
- Monitored Trends
- Alarm Summary
- Setting Summary
- Searchable Data for Customizable Reports
- Cloud Based Reports
- GPS Tracking





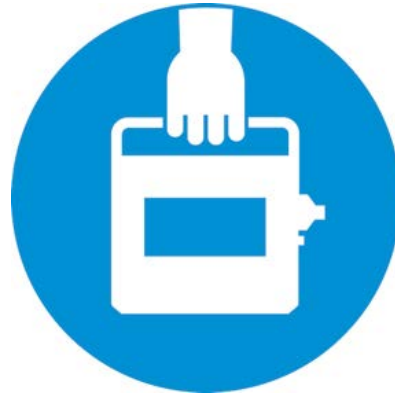
Benefits of Integrated Care

VOCSN is Simple, Mobile, and Care Changing



SIMPLE

- Ventec One-Circuit™
- Single integrated Ventec-One circuit
- Quick and easy setup



MOBILE

- Five therapies in one device
- 70% lighter and smaller than five devices
- Up to 9 hours of on-board battery



CARE CHANGING

- Touch Button Cough™
- Uninterrupted ventilation between therapies
- Designed to reduce the risk of infection

1 device to learn
device to clean
alarm to silence

1 device to transport
device to charge
power supply to carry

1 circuit for all therapies
touch to operate
device to monitor



VOCSN Streamlines Care from Prescription to Payment



device to prescribe
device to learn
device to clean
alarm to silence
device to transport
device to charge
power supply to carry
circuit for all therapies
touch to operate
device to monitor
code to bill



Care Benefits of VOCSN

VOCSN was design to accomplish the following care goals



- Increased Patient and Caregiver Mobility
- Reduced Noise
- Easy to Use Operating System
- Patient Empowerment
- Patient Comfort – Uninterrupted Ventilation Using One Circuit for All Therapies
- Reduced Risk of Infection
- Increased Patient Compliance



Benefits of Integrated Care

VOCSN is Simple



SIMPLE

- Intuitive touchscreen operation
- Single integrated Ventec-One circuit
- Software enabled updates and data capture
- Quick and easy setup





Benefits of Integrated Care

VOCSN is Mobile



MOBILE

- Five therapies in one device
- 70% lighter and smaller than five devices
- Up to 9 hours of on-board battery
- 100G impact protection with case



Benefits of Integrated Care

VOCSN is Care Changing



CARE CHANGING

- Switch between therapies with the touch of a button
- Uninterrupted ventilation between therapies
- Designed to reduce the risk of infection
- Up to 3x quieter





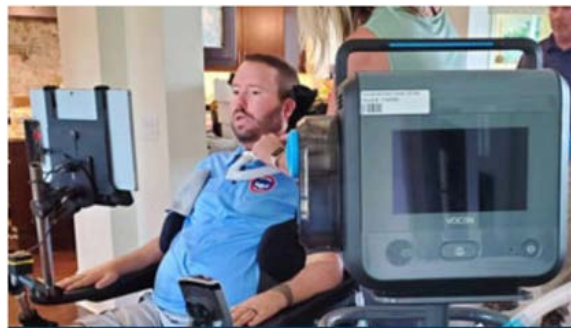
VOCSN Users

Patients from hospital to home are benefiting from Integrated Respiratory Care



Pat Quinn

Yonkers, NY



Kevin Swan

Bradenton, FL



Brooks Howell

Louisville, KY



**Generations Healthcare
Network**

Lincoln, IL



Team Gleason House

New Orleans, LA



**Gurwin Jewish Nursing &
Rehabilitation Center**

Commack, NY

VentecLife.com/stories



Homecare Reimbursement – HCPCS E0467

Multi-Function Ventilator, One Code

Multi-Function Ventilator (HCPCS E0467) - Effective January 1, 2019

A multi-function ventilator is defined as a single device that integrates a ventilator, portable oxygen concentrator, cough stimulator, suction, and nebulizer. VOCSN is the only device that integrates all five therapies and qualifies as a multi-function ventilator.

Eligibility: Patient must have a Physician Prescription for

Ventilator (Invasive or Non-Invasive)
+ **One Additional Therapy** (Oxygen, Cough, Suction, Nebulizer)

Eligibility for a multi-function ventilator follows **the same medical necessity** as existing devices today.

All New Ventilator Users Are Eligible. Existing ventilator users that have used:

- Cough, Suction, and/or Nebulizer for
less than 13 months or more than 60 months
- Oxygen therapy for
less than 36 months or more than 60 months

E0467 is different than traditional ventilators and other equipment

- Streamlined eligibility, reduced paperwork, single DME provider
- Not specific to invasive or non-invasive ventilation
- DME retains ownership and is reimbursed monthly at ~15-20% higher than traditional ventilators

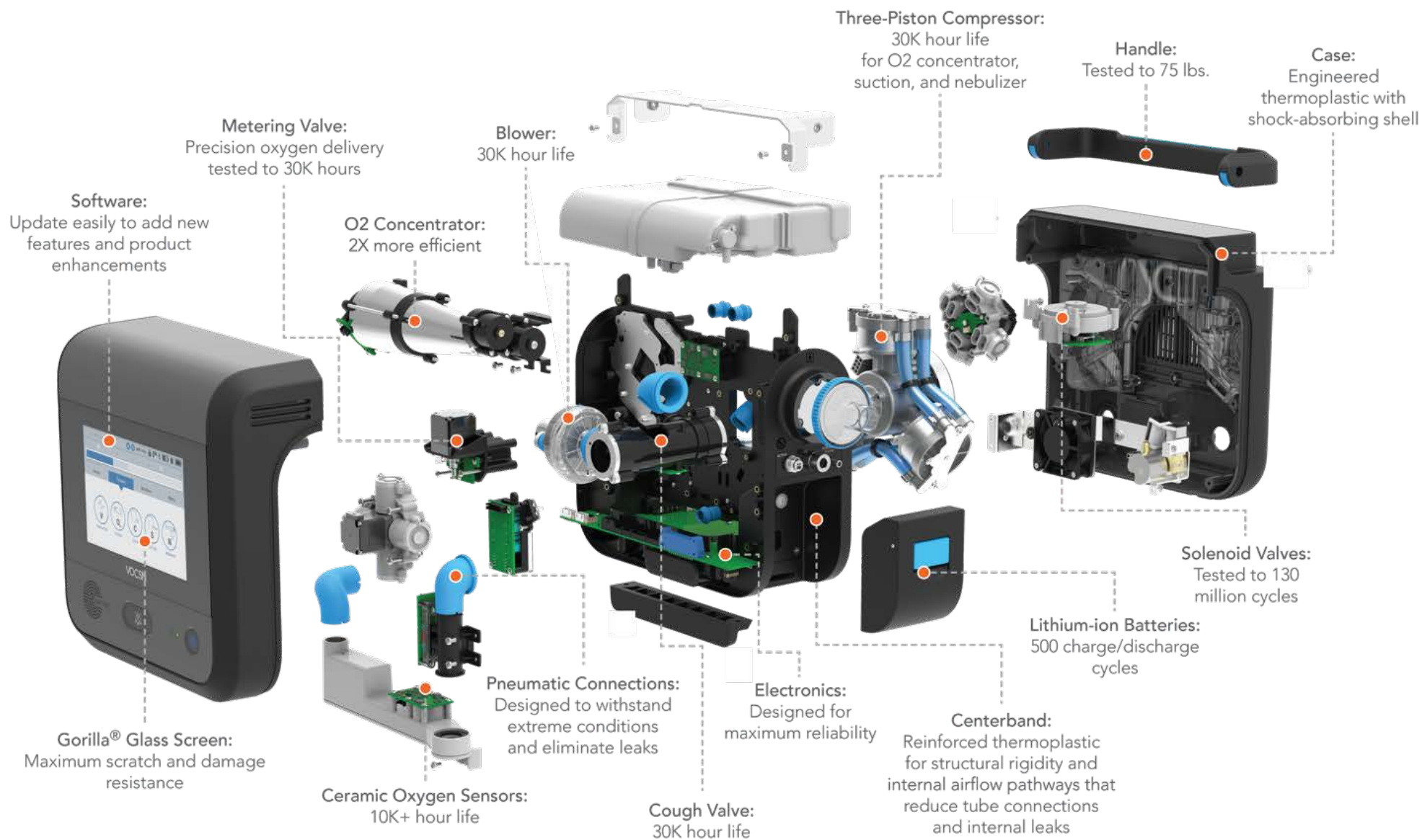
More information at [VentecLife.com/E0467](https://www.ventec.com/E0467)





Engineered Tough

All VOCSN components are engineered to provide lasting value





Care Benefits of VOCSN

Increased Patient and Caregiver Mobility

- Today, most patients typically do not leave the house due to the burden of transporting each therapy or they leave the house without certain therapies like suction or nebulization. This puts the patient at risk and decreases patient compliance. With VOCSN, all five therapies travel with patients at all times.
- VOCSN weighs 70% less than all five devices combined. Transporting one device with one set of accessories is easier than 5 devices, 5 large power cords, different circuits, and accessories.
- Mobility may improve patient wellbeing and health outcomes (VOCSN allows patients to leave the house day to day and to travel to family reunions across the country). Patients will not be confined to bedroom/house, etc.

Reduced Noise

- Patients running both a ventilator and oxygen concentrator in their homes experience a level of noise that makes conversation and sleeping difficult.
- VOCSN therapies are typically 2 to 3 times quieter than traditional technology.

Easy to Use Operating System

- Touchscreen with common interface for all five therapies may reduce the risk of mistake and the level of anxiety both the patient and caregiver feel when they manage five different systems. This may help to prevent hospital readmissions.

Patient Empowerment

- VOCSN makes it easier to administer therapies. For example, the cough therapy now takes seconds instead of minutes using one device and one circuit rather than two separate devices with separate circuits.
- VOCSN will likely save the caregiver time. Making therapies faster and easier to use increases compliance.



Care Benefits of VOCSN, Continued

Patient Comfort – Uninterrupted Ventilation Using One Circuit for All Therapies

- Patients that must be disconnected from a ventilator to administer other therapies typically experience a great deal of anxiety and discomfort because they are forced to disconnect from the device that is helping them to breathe. Switching a patient's circuit is labor and time intensive.
- VOCSN Patients always remain connected to a ventilator for life support and use one circuit instead of five separate patient interfaces to administer therapies.

Reduced Risk of Infection

- Switching between multiple circuits to provide different therapies opens the patient's airway and exposes the patient to increased risk of bacterial infection.
- Minimizing patient circuit disconnects has been proven to reduce the risk of infection/pneumonia.

Increased Patient Compliance

- VOCSN monitors all five therapies, including how they are used and when. This may help ensure patients actively use oxygen, cough, suction, and nebulization therapies as prescribed by their doctor. Typically, only the use of the ventilator is tracked in the home and there is no record of how patients use other therapies. VOCSN records the use over every therapy and creates a log for physicians to review.
- VOCSN makes it easier to administer each therapy. For example, during cough therapy the patient does not need to disconnect from the ventilator and the therapy takes less time. This increased convenience may improve patient compliance because the burden to complete each therapy is lessened.



Economic Benefits of VOCSN

Reduced Power Consumption

- VOCSN is twice as energy efficient as existing technology. VOCSN requires less power making it cheaper to power day to day. This is impactful to cash strapped families supporting ventilator patients and for facilities maintaining numerous ventilator patients.
- Reduced power needs also improve battery life. This provides patients greater range to leave their homes as well as backup power during emergencies or power outages.
- VOCSN needs one power plug instead of five. Many patient bedrooms do not have enough electrical ports to support five devices. Often, before patients can discharge from the hospital to the home, they must hire an electrician to update the electrical capacity of their rooms at home.

Reduction in Oxygen Consumption & Associated Costs

- VOCSN includes an oxygen concentrator and oxygen conserving device when connected to high pressure oxygen.
- VOCSN is the first system that allows ventilator patients to use an oxygen concentrator on the go, meaning they will not need to use an oxygen tank.
- Additionally, for patients that need more than 6 LPM or 40% FiO₂ (rare in homecare), VOCSN includes an oxygen conserving device that may reduce oxygen use by up to 30%, saving money.



Economic Benefits of VOCSN, Continued

Environmental Benefits

- Reduced plastic and accessories consumption. VOCSN uses only one circuit rather than several tubes and patient interfaces. Five devices integrated into one.

Routine Service Schedule

- Each therapy integrated into VOCSN has been over engineered to last longer to ensure that regular service schedules for all five therapies mirror the Ventilator (approximately every 10,000 hours).

Reduced Training Costs

- VOCSN uses a simple touchscreen operating system that works across all five therapies. Thus, rather than learning five different operating systems, caregivers only need to learn one system, potentially reducing training time and costs. This helps patients get out of the hospital faster and into home care where costs are less expensive.

Reduced Charting Time

- The Therapy Tracker on VOCSN stores 7,300 events including alarms, changes to control settings, and advanced tracking of each therapy. Users can view this information in an easy-to-read chronological presentation. This may improve monitoring and patient compliance and saves time from manual charting and medical record updates.
- VOCSN creates a downloadable log for physicians to track the use of all five therapies.



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