

VOCASN

Clinician Training Packet



VOCSN Clinician Training Checklist

Photocopy and complete this checklist as a record. Provide a hands-on demonstration of each item, and ensure the clinician understands how to perform the functions related to it. If possible, obtain a list of staff members and track each facility employee's training progress.

VOCSN Overview	
<ul style="list-style-type: none"> <input type="checkbox"/> Critical Care Ventilator <input type="checkbox"/> Oxygen Concentrator Capable of 6 L/min Flow Equivalent <input type="checkbox"/> Touch Button Cough Assist <input type="checkbox"/> Hospital Grade Suction 	<ul style="list-style-type: none"> <input type="checkbox"/> High Performance Nebulizer <input type="checkbox"/> For Patients 5 kg and Above <input type="checkbox"/> 3 to 9 Hours of Battery Power <input type="checkbox"/> Customizable Therapy Configurations
Buttons, Indicators, and Features	
<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate Powering VOCSN On/Off, Including 10-second Button Hold <input type="checkbox"/> External Power/Charge Status Indicator <input type="checkbox"/> Removing/Installing Batteries <input type="checkbox"/> Charge Status Button on Batteries <input type="checkbox"/> External Battery Charger 	<ul style="list-style-type: none"> <input type="checkbox"/> Alarm Silence button <input type="checkbox"/> Using the Clinician Access feature and entering the Passcode <input type="checkbox"/> Importance of Air Inlets and Vents <input type="checkbox"/> Connecting A/C or D/C Power <input type="checkbox"/> Wheelchair Cable <input type="checkbox"/> Auto Adapter
Touchscreen Indicators	
<ul style="list-style-type: none"> <input type="checkbox"/> Recent Alarms <input type="checkbox"/> Active Therapy Icons <input type="checkbox"/> External Power Icon <input type="checkbox"/> Battery Power Status Icons <input type="checkbox"/> Clinician Lock/Unlock Icon 	<ul style="list-style-type: none"> <input type="checkbox"/> Pressure Monitor <input type="checkbox"/> Navigation Tabs <input type="checkbox"/> Therapy Screen Icons <input type="checkbox"/> Patient Effort Icon
The Home, Therapy, Monitors and Menu Tabs	
<ul style="list-style-type: none"> <input type="checkbox"/> The Home screen <input type="checkbox"/> Night Mode and Day Mode 	<ul style="list-style-type: none"> <input type="checkbox"/> Overview of Therapy Screen <input type="checkbox"/> Menu options
Connecting Patient Circuits	
<ul style="list-style-type: none"> <input type="checkbox"/> Pre-Use Test: Importance of Measuring Circuit Compliance and Resistance <input type="checkbox"/> Bacterial Filters (Push in and Twist to Remove) <input type="checkbox"/> Ventec One-Circuit Overview <input type="checkbox"/> Oxygen Tube <input type="checkbox"/> External High and Low-pressure Oxygen Use and Monitoring 	<ul style="list-style-type: none"> <input type="checkbox"/> Active Circuit (with Multilumen Tube) <input type="checkbox"/> Passive Circuit <input type="checkbox"/> Valveless Circuit <input type="checkbox"/> Mouthpiece Circuit <input type="checkbox"/> Heated Circuit and Humidifier Bypass <input type="checkbox"/> Nebulizer Port and use of External Nebulizers <input type="checkbox"/> Replace Bypass with Heated Circuit
Ventilation Therapy	
<ul style="list-style-type: none"> <input type="checkbox"/> Active Preset <input type="checkbox"/> Switching Between Presets <input type="checkbox"/> Changing Settings <input type="checkbox"/> Changing the Mode, Circuit Type, and Volume Targeted Settings on an Active Preset 	<ul style="list-style-type: none"> <input type="checkbox"/> Ventilation Modes (VOCSN and Competitive Equivalents) <input type="checkbox"/> Patient Comfort Settings (Rise Time, Flow Termination, etc.)

Oxygen Therapy	
<ul style="list-style-type: none"> <input type="checkbox"/> Oxygen Sources (O2 Concentrator, External High-Pressure, and External Low-Pressure) <input type="checkbox"/> Starting and Switching Between Presets <input type="checkbox"/> Turning Off the Active Preset <input type="checkbox"/> Settings and Alarms <input type="checkbox"/> Setting FiO2 and Alarms <input type="checkbox"/> Using External High-Pressure Oxygen <input type="checkbox"/> Disconnect Low-Pressure Oxygen Adapter When Using High-Pressure Oxygen 	<ul style="list-style-type: none"> <input type="checkbox"/> Oxygen Sensor / FiO2 Monitor Warmup (5 min) <input type="checkbox"/> Oxygen Direct therapy Using the O2 Concentrator or External High-Pressure Oxygen <input type="checkbox"/> Ceramic Oxygen Sensor Replacement <input type="checkbox"/> Using External Low-Pressure Oxygen (with Adapter)
Cough Therapy	
<ul style="list-style-type: none"> <input type="checkbox"/> Cough Settings <input type="checkbox"/> Cough Cycles <input type="checkbox"/> Breath Sync <input type="checkbox"/> Manual Cough Configuration (1 Cycle without Breath Sync) 	<ul style="list-style-type: none"> <input type="checkbox"/> Mobilizing Secretions by Setting Cough Cycles to 10 and Pressing Cancel When Appropriate <input type="checkbox"/> Cough+Suction Technique and Suction time
Suction Therapy	
<ul style="list-style-type: none"> <input type="checkbox"/> Setting Vacuum Pressure <input type="checkbox"/> Setting the Suction Default Vacuum Pressure <input type="checkbox"/> Suction Performance Above 300 mmHg 	<ul style="list-style-type: none"> <input type="checkbox"/> Connecting and Disconnecting the Travel Suction Canister, and Capacity (300 mL) <input type="checkbox"/> 1/4" Suction Tubing for Optimal Performance
Nebulizer Therapy	
<ul style="list-style-type: none"> <input type="checkbox"/> Connecting 6 L/min Nebulizer Cups (Use Sunset Nebulizer Cups for Optimal Performance) <input type="checkbox"/> Nebulizer Powered by Air Compressor <input type="checkbox"/> Ventilation Compensates for Increased Flow from Nebulizer. 	<ul style="list-style-type: none"> <input type="checkbox"/> Connecting External Nebulizers <input type="checkbox"/> Setting the Nebulizer Duration and Starting Therapy <input type="checkbox"/> Nebulization Pauses with High Pressure Alarm for Patient Safety
Switching Between Therapies	
<ul style="list-style-type: none"> <input type="checkbox"/> 5-second Delay When Switching Therapies <input type="checkbox"/> Suction and Nebulizer Pause Pulse Dose and FiO2 Oxygen 	<ul style="list-style-type: none"> <input type="checkbox"/> Options for Patients Requiring Oxygen (External Low-Pressure Oxygen or an External Ultrasonic Nebulizer)

Alarms	
<ul style="list-style-type: none"> <input type="checkbox"/> Setting Low and High Alarms: 1) Press High/Low Icon, 2) Turn Alarm On/Off, 3) Change Setting <input type="checkbox"/> High Priority (Red Banner with 10 Tones Every 3 Seconds), Medium Priority (Yellow Banner with 3 Tones Every 7 Seconds), and Low Priority (Blue Banner with No Audible Sound) Alarms <input type="checkbox"/> Very Low FiO2 Alarm <input type="checkbox"/> Alarm and Event Logs <input type="checkbox"/> Battery Use (Low Priority) <input type="checkbox"/> Clearing and Double Clearing Alarm Logs <input type="checkbox"/> Internal Battery Low Alarm (Medium Priority at <50% Charge) and Internal Battery Critically Low Alarm (High Priority at <33% Charge) <input type="checkbox"/> Alarm Delay Options <input type="checkbox"/> Setting Alarm Volume to Low, Medium, or High 	<ul style="list-style-type: none"> <input type="checkbox"/> Set Low Pressure, Low Minute Volume, Patient Circuit Disconnect, and Apnea Alarms to Detect All Circuit Disconnects <input type="checkbox"/> Review Chapter 6 of Clinical and Technical Manual (Alarms) <input type="checkbox"/> System Inop Alarm (Verify Double Beep on Startup and Immediately Provide Alternate Ventilation in Case of Flashing Red On/Standby Button and Beeping During Therapy) <input type="checkbox"/> Remote Alarm/Nurse Call Port and How VOCSN Interfaces with Remote Alarms (Delays) <input type="checkbox"/> Frequent High Pressure Alarms May Not Trigger Remote Alarms with >10 Second Delays <input type="checkbox"/> Battery Use Alarm (External Power Disconnect) with Nurse Call Systems <input type="checkbox"/> Maintenance Required Alarm: Contact Ventec Life Systems for Service
Monitors	
<ul style="list-style-type: none"> <input type="checkbox"/> Monitors and Screen Customization <input type="checkbox"/> Home Screen Monitors Customization <input type="checkbox"/> Waveforms 	<ul style="list-style-type: none"> <input type="checkbox"/> Review Chapter 7 of Clinical and Technical Manual (Monitors)
Cleaning and maintenance	
<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate Device Cleaning <input type="checkbox"/> To Clean Touchscreen, Apply Cloth Off of Touchscreen and Wipe Across to Prevent Accidental Touches 	<ul style="list-style-type: none"> <input type="checkbox"/> Air and Fan Filters
Safety Information	
<ul style="list-style-type: none"> <input type="checkbox"/> Air Flow around VOCSN 	<ul style="list-style-type: none"> <input type="checkbox"/> Review all VOCSN Patient Safety Reminders on the next page

Patient Safety Reminders

Before providing therapy to the patient, read the *Clinical and Technical Manual*, including all warnings and cautions. Additionally, when providing therapy to the patient, keep the following patient safety reminders in mind.

General Safety Reminders

- If critical to patient care, always have an alternative means of ventilation, oxygen, cough, nebulization, and secretion management available.
- Unplug VOCSN from external power before cleaning it. Pay close attention to the VOCSN touchscreen during cleaning to ensure controls on the touchscreen are not unintentionally pressed.
- Only use spare parts and accessories recommended by Ventec Life Systems. Only Ventec One-Circuits are approved for use with VOCSN.
- Do not use VOCSN if it has evident signs of damage.

VOCSN Placement Warnings

- Do not cover VOCSN, place it in an area in which the vents may become obstructed (such as on its back or on top of compliant bedding), or use it in hazardous environments (such as atmospheres containing pollutants). If necessary, discuss a showering protocol with clinicians.
- Do not use VOCSN within magnetic resonance (MR) environments.
- Keep VOCSN out of reach of children or use the screen lock feature.

Patient Circuit Safety Reminders

- Do not use heated wire Ventec One-Circuits on, within, or under localized heat sources or insulating materials such as blankets or thermal chambers.
- Any components added to the breathing circuit between the patient circuit exhalation valve and the patient will increase the amount of gas the patient rebreathes with each breath.

Ventilation Therapy Warnings and Tips

- Inspect all patient circuit filters frequently for signs of increased resistance or blockages, and ensure alarms are set appropriately to verify the accuracy of delivered Ventilation therapy.
- The accuracy of Vte measurements can be compromised by large leaks at the patient interface.
- When using the Volume Targeted feature, set the High Pressure and Low Pressure alarms appropriately for the patient condition, and set the Low Minute Volume alarm to protect against decreases in patient lung compliance.
- When using a speaking valve, volume ventilation modes with a passive Ventec One-Circuit are not recommended. For the best results, turn off Leak Compensation. If the Low Minute Volume and/or Patient Circuit Disconnect alarm cannot be used, use an alternate respiratory monitor such as an oximeter or cardio-respiratory monitor to detect hypoventilation.

Oxygen Therapy Warnings and Tips

- The internal O₂ Concentrator is not intended for life support. Where the prescribing healthcare professional has determined that an interruption in the supply of oxygen, for any reason, may have serious consequences to the user, an alternate source of oxygen should be available for immediate use. The O₂ Concentration alarm may take more than five minutes to activate, depending on VOCSN therapy settings.
- The O₂ Flow Equivalent control setting may not result in a flow that corresponds exactly to bleeding a continuous flow of oxygen into a ventilator.
- Do not bleed oxygen into the Ventec One-Circuit from an external source without connecting it to one of the VOCSN oxygen input ports.
- Pay attention to the language on the screen to see which Oxygen therapy preset is running. Turning off a Preset will also turn off its associated alarms.
- The Low FiO₂ alarm activates when the monitored FiO₂ falls below the set low FiO₂ alarm limit. The O₂ Concentration alarm activates when the internal O₂ Concentrator produces less than 82% oxygen, when there is a fault with the oxygen sensor, or when the monitored oxygen tank pressure is too low (such as when an external high-pressure O₂ source is depleted or not attached).

Cough, Nebulizer, and Suction Therapy Warnings and Tips

- Before delivering Cough therapy when using a heated humidifier, verify a Ventec Humidifier Bypass is installed.
- Work with a clinician to develop a plan for Cough therapy, specific to each patient.
- Set a slow Rise Time (high number) for Cough therapy to reduce the amount of secretions pushed back into the patient during insufflation.
- Use only 6 L/min nebulizer cups with VOCSN. Ventec Life Systems recommends using Sunset nebulizer cups for optimal performance.
- Periodically check the suction system for leaks by blocking the end of the suction tubing. Verify that the monitored suction vacuum value matches the setting.

VOCSN Alarm Warnings

- Set the Alarm Volume loud enough to be heard over expected ambient noise. Connect VOCSN to a nurse call system if necessary.
- Do not set alarm limits to values that render the alarm system useless.
- Set the Low Pressure, Low Minute Volume, Patient Circuit Disconnect, and Apnea alarms appropriately to detect patient circuit disconnections. If appropriate for the patient condition, run the decannulation checkout test procedure described in chapter 8 of the *Clinical and Technical Manual* to ensure disconnects are detected.

Power Safety and Tips

- Check the batteries and external power supply regularly.
- If the internal battery is run to a low or critically low state, it may take several minutes to begin charging after external power is applied.
- Do not damage the rechargeable Lithium-ion batteries. Do not use or charge the battery if it appears to be damaged. Signs of damage include, but are not limited to, discoloration, warping, and leaking battery fluid. Do not expose the battery to fire or high temperature. Do not immerse the battery in water. Do not use or store the battery inside a vehicle during hot weather. Do not drop or puncture the battery. Do not open the battery or short-circuit its contacts.
- Replace VOCSN batteries when the absolute charge (visible on the My VOCSN screen) is less than 50%.

Maintenance Reminders

Follow your healthcare institution's protocol as well as all guidelines in the VOCSN *Clinical and Technical Manual* for component maintenance and replacement. The manual is available for download at VentecLife.com.

The low-priority Maintenance Required alarm will activate when the PM Required monitor falls below 0, indicating that VOCSN is overdue for maintenance. When this alarm activates, contact Ventec Life Systems for service.

Knowledge Check

After providing training, ask the clinician to perform each of the following tasks, and record the result. Provide additional training in the competency area associated with any task that is not performed correctly.

Task	Pass	Fail
Attaching, securing, and removing the VOCSN power cord.	<input type="checkbox"/>	<input type="checkbox"/>
Turning VOCSN On and Off.	<input type="checkbox"/>	<input type="checkbox"/>
Removing and replacing the batteries.	<input type="checkbox"/>	<input type="checkbox"/>
What is the projected battery life of VOCSN when running only Ventilation therapy?	<input type="checkbox"/>	<input type="checkbox"/>
What is the projected battery life of VOCSN when using all therapies?	<input type="checkbox"/>	<input type="checkbox"/>
Identifying and describing the importance of the air inlets and vents.	<input type="checkbox"/>	<input type="checkbox"/>
Identifying and entering the Clinician Access passcode.	<input type="checkbox"/>	<input type="checkbox"/>
Replacing the external bacterial filter.	<input type="checkbox"/>	<input type="checkbox"/>
Replacing the patient circuit, including connecting an active valve and an integrated oxygen tube.	<input type="checkbox"/>	<input type="checkbox"/>
Running a Pre-Use Test.	<input type="checkbox"/>	<input type="checkbox"/>
Switching Ventilation therapy presets.	<input type="checkbox"/>	<input type="checkbox"/>
Clearing the Alarm Log.	<input type="checkbox"/>	<input type="checkbox"/>
Changing Ventilation therapy controls (such as Breath Rate and PEEP).	<input type="checkbox"/>	<input type="checkbox"/>
Providing Volume Targeted ventilation.	<input type="checkbox"/>	<input type="checkbox"/>
Providing CPAP ventilation.	<input type="checkbox"/>	<input type="checkbox"/>
Changing Ventilation alarms (such as Low and High Inspiratory Pressure), and turning an alarm on/off.	<input type="checkbox"/>	<input type="checkbox"/>
Delivering oxygen from the internal O2 Concentrator.	<input type="checkbox"/>	<input type="checkbox"/>
Connecting and configuring external high-pressure oxygen (if applicable to the facility), and monitoring the delivered therapy.	<input type="checkbox"/>	<input type="checkbox"/>
Which therapies cause Oxygen therapy to pause?	<input type="checkbox"/>	<input type="checkbox"/>
Connecting and configuring external low-pressure oxygen (if applicable to the facility).	<input type="checkbox"/>	<input type="checkbox"/>
Changing the Vacuum control and starting Suction therapy.	<input type="checkbox"/>	<input type="checkbox"/>
Configuring a Cough therapy preset and starting Cough therapy.	<input type="checkbox"/>	<input type="checkbox"/>
Using Cough + Suction therapy both during and after Cough	<input type="checkbox"/>	<input type="checkbox"/>
Connecting a nebulizer cup to VOCSN, and configuring and starting Nebulizer therapy.	<input type="checkbox"/>	<input type="checkbox"/>
Connecting a nebulizer cup to an external drive, and describing which situations might require an external nebulizer. Recommended nebulizer cups.	<input type="checkbox"/>	<input type="checkbox"/>

Trainee Name and Title: _____

Trainer Name: _____ **Date:** _____