

# Virtual Simulation Participant Guide

## Overview

The virtual simulation session is designed to be a training opportunity to build on virtual education sessions delivered through Connected Care (e.g. virtual tracheostomy workshop, virtual invasive ventilation workshop). The virtual simulations will allow participants to apply content learned from previous sessions and build problem-solving skills in caring for children requiring complex medical technology in the home.

## Role of the Participant

Participants will observe virtual simulations, reflect on assessments, actions and interventions in the simulations and engage in discussions to highlight key learnings.

## General Virtual Etiquette

- Ensure you have access to a computer that has audio and video capabilities.
- Sign in online at least 5 minutes before the session starts.
- Have a pen and paper for taking notes.
- Mute your microphone when you are not speaking.
- If you have internet issues you may need to leave and then sign back in.
- Please be patient if there is an internet delay for the simulation.
- Participate in the debrief after each virtual simulation
- Avoid multitasking when participating in virtual education

## Virtual Simulation Guiding Principles

The simulation scenarios that you will be observing and engaging in discussions will demonstrate potential encounters that may occur in a child's home. This simulation activity is a learning experience and is designed to provide opportunities to apply previous learnings and experiences into action. Participants will be divided into two breakout groups using Zoom breakout rooms. In a safe learning environment, participants will have the opportunity to discuss what was observed, what actions to be taken next and reflect on key learnings from each scenario.

## Preparing for the Virtual Simulation

Prior to attending, review the following safety checklist and sample orders. These tools will support your participation in discussions during the simulation scenarios. Your facilitator(s) will refer to these throughout the workshop.



# PAEDIATRIC HOME NON-INVASIVE VENTILATION CARE SAFETY CHECKLIST

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## START OF SHIFT DISCUSSION WITH FAMILY CAREGIVERS

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- Review the child's care plan and discuss any updates with family caregivers
- Establish a system to communicate with family caregivers in case of emergency/support required
- Discuss the use of Connected Care Live with family caregivers
- Confirm that prescribed settings/alarm parameters are on hand or taped to non-invasive device

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## PAP DEVICE

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- Verify correct circuit setup and that device is placed safely on a bedside table/stand and at or below the level of the child
- Confirm settings and alarms against orders
- Check that the device is plugged into AC power and internal battery is charging
- Ensure circuit and inlet filter are clean
- Ensure there are no liquids near the device
- Check that there is no water in circuit
- Check that oxygen connector and tubing attached or readily available
- Ensure the above is completed if the child has a backup device
- If the child has been prescribed an external battery, check that it is charged/charging and readily available with ventilator adaptor (DC cable and transformer setup) close by or already connected to bedside ventilator

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## HEATED HUMIDIFIER

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- Ensure heated humidifier is connected to the device
- Ensure the circuit tubing is connected securely to the humidifier chamber
- Verify the humidifier setting against orders
- Check that the humidifier chamber is filled with sterile distilled water up to safe max water line

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## INTERFACE (I.E. MASK)

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- Ensure exhalation holes are unobstructed, mask is clean and headgear is in good condition
- Ensure the anti-asphyxia valve is functioning properly for full face or total face mask
- Ensure back up mask is available
- Perform Learn Circuit check (if needed) – ensure tubing is intact and all connections are tight

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## **OXIMETER**

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- Check that machine is plugged into AC power, charging internal battery
- Ensure oximeter is turned on and probe is connected to child
- Verify oximeter is reading accurately and there are no alarms
- Verify settings against orders
- Ensure extra oximeter supplies are available (e.g. probes and stickers)

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## **SUCTION MACHINE (IF PRESCRIBED)**

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- Check that unit is plugged into AC power and charging
- Ensure backup suction machine is plugged into AC power/charging and readily available (if applicable)
- Verify that suction pressures are set appropriately
- Ensure enough supplies are available

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## **OTHER**

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- Flashlight available
- Check that cell phone is charged
- Ensure contact numbers are available and know who to call and when

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## **OXYGEN (IF PRESCRIBED, PLEASE ALSO REFER TO CHECKLIST PROVIDED BY OXYGEN VENDOR)**

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- Check that tanks are securely stored (at home and if traveling)
- Ensure regulators are attached properly and turned off if not in use
- Check that tanks are not empty
- Ensure concentrator is located in a well-ventilated area, plugged in and providing flow
- Check that oxygen tubing is connected to the oxygen source (i.e. concentrator, tank)
- Check that no oil, grease or petroleum-based products are on the equipment or the child
- Ensure you have the number to the oxygen vendor (check for a sticker on tank/concentrator)



## PAEDIATRIC HOME COUGH ASSIST SAFETY CHECKLIST

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### START OF SHIFT DISCUSSION WITH FAMILY CAREGIVERS

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- Review the child's care plan and discuss any updates with family caregivers
- Establish a system to communicate with family caregivers in case of emergency/support required
- Discuss the use of Connected Care Live with family caregivers
- Confirm that prescribed settings/alarm parameters are on hand or taped to non-invasive device

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### COUGH ASSIST DEVICE

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- Verify correct circuit setup and that device is placed safely on a bedside table/stand where therapy can easily be provided
- Confirm settings against orders
- Check that the device is plugged into AC power and detachable battery is charging
- Ensure circuit, inlet and outlet filters are clean
- Ensure there are no liquids near the device

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### INTERFACE (MASK, MOUTHPIECE OR TRACHEOSTOMY ADAPTOR)

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- Ensure the mask cushion is filled with air (if using a mask). If deflated, refill using an empty syringe.
- Ensure backup mask (mouthpiece or trach adaptor) is available

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### OXIMETER

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- Check that machine is plugged into AC power, charging internal battery
- Ensure oximeter is turned on and probe is connected to child
- Verify oximeter is reading accurately and there are no alarms
- Verify settings against orders
- Ensure extra oximeter supplies available (e.g. probes and stickers)

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### SUCTION MACHINE

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- Check that unit is plugged into AC power and charging
- Ensure backup suction machine is plugged into AC power/charging and readily available (if applicable)
- Verify that suction pressures are set appropriately
- Ensure enough supplies are available

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## OTHER

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- Check that cell phone is charged
- Ensure contact numbers are available and know who to call and when

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## OXYGEN (IF PRESCRIBED, PLEASE REFER TO CHECKLIST PROVIDED BY OXYGEN VENDOR ALSO)

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- Check that tanks are securely stored
- Ensure regulators are attached properly and turned off if not in use
- Check that tanks are not empty
- Ensure concentrator is located in a well-ventilated area, plugged in and providing flow
- Check that oxygen tubing is connected to the oxygen source (i.e. concentrator, tank)
- Check that no oil, grease or petroleum-based products are on the equipment or the child
- Ensure you have the number to the oxygen vendor (check for a sticker on tank/concentrator)
- If oxygen is prescribed during or pre/post therapy, ensure set up is completed in advance and it is easily accessible

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Sample Orders

2/2021

**ResMed Stellar**  
**VEP #: 1234**

<b>Settings</b>		<b>Prescription</b>
Mask type	Brand / Model	Fisher & Paykal - Simplus
	Total / Full / Nasal	Full
	Size	Small
<b>Mode</b>		
Mode		ST
IPAP	cmH <sub>2</sub> O	12
EPAP	cmH <sub>2</sub> O	6
Breath Rate	bpm	15
Ti min / max	sec	1.0/1.2
Trigger Sensitivity	low / med / high	High
Cycle Sensitivity	low / med / high	Med
Rise time/ Fall time	msec	150/200
<b>Alarms &amp; Options</b>		
Low Min Vent (minute ventilation)	Lpm/OFF	OFF
High Leak	ON/OFF	ON
Non-vented mask	ON/OFF	ON
Apnea alarm	Secs	OFF
Low / High pressure	cmH <sub>2</sub> O	-3/20
Low / High RR	Bpm	-/50
Alarm volume	low / med / high	Med
Ramp time / max ramp	OFF / min	OFF
Start EPAP (for ramp time)	cmH <sub>2</sub> O	N/A
Oxygen (added to machine)	Lpm	1
Humidifier setting	1-6	3
Learn circuit done	YES / NO	Yes

### Mechanical In-Exsufflation Settings (Cough Assist)

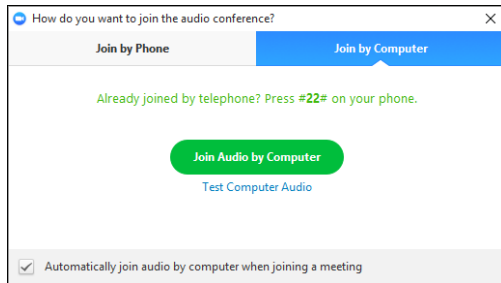
Set Parameters		Prescription
Mode		AUTO
Cough-trak	ON/OFF	OFF
Inhale pressure	+cmH <sub>2</sub> O	40
Inhale flow	Low/Med/High	Med
Inhale time	sec	2
Exhale pressure	-cmH <sub>2</sub> O	-40
Exhale time	sec	2
Pause time	sec	1
Oscillation	inhale / exhale / both	BOTH
Frequency	Hz	12
Amplitude	cmH <sub>2</sub> O	2
Mask size		Small Adult
# cough cycles / set		3
# sets / treatment		3
# treatments / day		BID
Peak cough flow average measured range		220-300 L/min

## How to Join a Zoom Meeting

Step 1: Click on the Zoom link that was sent to your email (check your personal, work and junk folders). Follow the prompts to download and run Zoom.

Step 2: Just before entering the meeting you will be prompted to enter a display name. This name is simply to identify you in the meeting and is not connected to your username.

Step 3: You will then be prompted to join audio. Select Join Audio by Computer (*TIP: by selecting the 'Automatically join audio by computer...' option you won't be prompted in the future*)



Step 4: Turn on your video if possible. If you are having issues with the quality of your video, you can turn it off, but turn it on to participate in discussions or to ask a question.

Step 5: Mute your microphone to avoid distracting noises and feedback sounds for the facilitator and other participants. Unmute to speak.

