

USING THE FREQUENCER® WITH MECHANICALLY VENTILATED PATIENTS

The Frequencer® technology uses sound waves to facilitate the evacuation of pulmonary secretions. It is gentle, safe, and effective for treating patients with challenges clearing their airways. The acoustic sound wave therapy delivered by the Frequencer® modifies the rheological properties of the mucus in the bronchioles so that it is evacuated more easily to the larger bronchi. In a conscious patient, the treatment would trigger a cough, making it possible to expectorate the secretions.

SAFE AND EFFECTIVE PLACEMENT OF THE DEVICE

The Frequencer® can also effectively be used on mechanically ventilated patients. The patient could receive the treatment in a standard resting position by placing the device against the chest wall, without interfering with any of the probes, monitors and leads that are present on the patient. It can also be used in conjunction with “proning”, a technique used by care teams to assist patients in acute respiratory distress by turning a patient from their back onto their abdomen. In both of these positions, the device is safe to use on the patient and helps to mobilize mucus through the airways to ultimately remove it from the lungs through the ventilator.

Because intubated and mechanically ventilated patients are generally unable to cough, it is important to provide adequate equipment and qualified personnel to perform endo-bronchial aspiration according to the quantity of secretions evacuated from the bronchioles to the larger bronchi.

The suggested treatment frequency is every 4 to 6 hours as needed. The frequency of treatments can be increased if necessary.

STEPS FOR USING THE FREQUENCER® IN MECHANICALLY VENTILATED PATIENTS

STEP 1: Select the correct adapter (i.e., the largest adapter that will form a complete seal when applied to the chest area). Tightly affix the adapter onto the transducer. (*Refer to The Components section of the User Manual, for more info on adapters*).

Adapter Sizes:

No 1 is for newborns and infants

No 2 is for toddlers and children

No 3 is for adolescents and adults

No 4 is for large adults

An adapter with filter can be reused for treatments on the same patient, but a new adapter with filter needs to be used on different patients.



STEP 2: Press the power switch on the back of the Frequencer® control unit to turn on device. A green light will illuminate on the top of the control unit. It may take from 35 to 40 seconds for the control unit interface to activate. By default, the frequency level is set at 40 Hz and the treatment intensity is set at 50%. Change the intensity of the treatment to 75%. (Refer to the Control unit functionalities section of the User Manual, to change default settings).

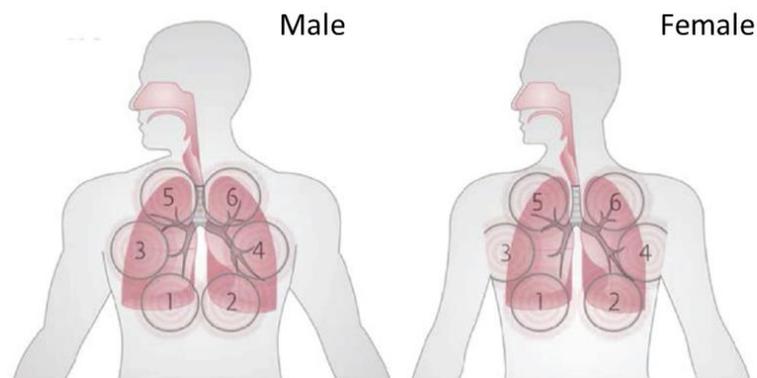
STEP 3: With your hand holding the top part (cover) of the transducer, place the transducer on chest wall. Treatment should be applied over the patient's garment.

STEP 4: Press Start. Apply transducer to chest areas for 2 minutes each, starting in the lower right and left lobe and working upward on each side. If an area seems more affected (according to a CT-SCAN or an ultrasound assessment), it may be advisable to extend the treatment for a few minutes at that location.

Do not apply any pressure on the transducer when placed on the chest. Ensure a complete seal. The transducer is easier to hold and apply while the patient is in a slightly reclined position.

The effectiveness of treatment can be monitored by checking the patient's saturation evolution as well as ventilatory parameters.

To temporarily stop treatment, press the PAUSE button. The duration of a treatment with the Frequencer® is 12 minutes.



NOTE: For ventilation in the prone position, the Frequencer® can be used in the same way on the back, the adjustment parameters remain the same.

STEP 5: After treatment, press the PAUSE button and turn the power switch off before unplugging.

NOTE: The effects of the treatment can sometimes continue for up to 30 minutes, which may require repeated aspiration of secretions.