

## GENERAL PRINCIPLES FOR USING THE FREQUENCER® IN MECHANICALLY VENTILATED PATIENTS

The Frequencer® technology uses sound waves to facilitate the evacuation of pulmonary secretions and is therefore very gentle and safe. These treatments make it possible to modify the rheological properties of the mucus in the bronchioles so that it is evacuated more easily to the larger bronchi. In a conscious patient, it is therefore normal for the treatment to trigger a cough, which will make it possible to expectorate the secretions.

**IMPORTANT ATTENTION:** With a patient intubated and mechanically ventilated and 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 IN 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 [4\_a], The components, for more info on adapters).

No 1 is for very small children;

No 2 is for children;

No 3 is used young adults;

No 4 is for adults;

An adapter with filter can be reused for treatments to the same patient. A new adapter with filter needs to be used in between different patient

**STEP 2:** Press power switch on the back of the Frequencer® V2x 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, frequency level is set at 40 Hz and treatment intensity

at 50%. Change the intensity of the treatment to 75%. (Refer to [4\_b], Control unit functionalities, to change default settings)

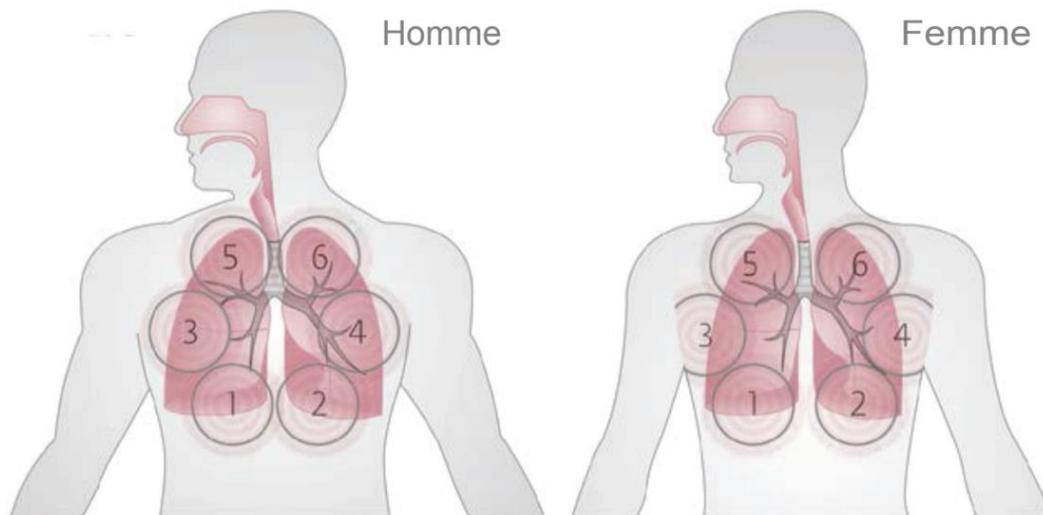
**STEP 3:** With your hand holding the top part (cover) of the transducer, place transducer on chest wall and press START.

STEP 4: 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 this location.

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

To temporarily stop treatment, press PAUSE. The duration of a treatment with Frequencer® is generally 12 to 15 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: IMPORTANT do not apply any pressure on the transducer when placed on the chest. Ensure complete seal. Transducer is easier to hold while patient is in a slightly reclined position.

STEP 6: After treatment, press PAUSE button and turn power switch off before unplugging

NOTE: At the end of a treatment, it may be normal for small redness sometimes appear on the skin. The effects of the treatment can sometimes continue for up to 30 minutes, which may require repeated aspiration of secretions.