

WHITE PAPER

Acapella® Respiratory Therapy System Nebulizer Placement

The treatment of chronic lung diseases typically include the use of a nebulizer to deliver medication. Aerosolized drugs can include antibiotics, corticosteroids, and saline, and these medications can help with, among other things, secretion hydration. However, the use of nebulizer can also add time to daily therapies. Therefore, combining a nebulizer with the Acapella® respiratory therapy system can reduce the total time of therapy and may help with secretion removal due to hydration. Clinicians now have the option to place the nebulizer between the mouthpiece and the device. Aerosol lung deposition with the placement of the nebulizer in this position has been shown to be similar to a nebulizer alone⁶. This new placement should improve confidence that patients are receiving the appropriate dosage of nebulized medication and still obtaining the benefits of oscillatory PEP.

The Acapella® respiratory therapy system combines high-frequency oscillations and PEP into a single treatment. Exhaled air is opposed as it passes through the device, resulting in positive expiratory pressure. Additionally, this expired flow is intermittently occluded by a moving magnetic counterweight, producing air flow oscillations. The use of a magnetic counterweight allows for non-position depended usage of the device and still allows for a patient-specific therapy by adjusting the magnet positioning. There are 5 settings on the Acapella® respiratory therapy system allowing for optimization of frequency, oscillation amplitude, and mean pressure. The Acapella® respiratory therapy system family of products (Blue, Green, and Choice) have been shown to reach a range of PEP (3-23 cm H₂O) and frequency of oscillation (8-21 Hz).^{1,2,3,4,5}



Proximal placement of nebulizer on the Acapella® respiratory therapy system.

References:

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