

# The V+C Ventilator

Featuring ICAT™



The React Health V+C Unified Respiratory System delivers invasive and noninvasive ventilation, High Flow Therapy and integrated cough technologies. The advanced unified respiratory system combines responsive leak and circuit compensation as well as precision flow trigger controls to enable comfortable breathing and accurate therapy.

- ✦ By unifying ventilation and cough into one system, it now takes **seconds instead of minutes** to administer cough therapy with Integrated Cough Assist Technology ICAT™.
- ✦ During invasive ventilation, patients remain connected to the ventilator at all times, and there is no need to disconnect circuits between mechanically assisted coughs.
- ✦ Designed to elevate the patient experience, enhance comfort, and increase the utilization of cough assistive therapies all within one lightweight, portable device.
- ✦ Cough is activated with the touch of a button to make airway clearance easy, synchronizing with the patients breathing pattern ensures uninterrupted ventilatory support and enhanced patient comfort.

Contact your React Health representative to learn more about the V+C Ventilator with ICAT™ technology and the new HCPCs code E0468

# RESPIRATORY INTERVENTIONS

Individuals now have easy access to two important respiratory interventions in one innovative device.

Regular use of mechanically insufflation-exsufflation (MI-E) has been associated with some of the following benefits:

## INCREASED

### Comfort

A survey of individuals with spinal cord injury found MI-E to be preferred over invasive suctioning.<sup>1</sup>

MI-E was noted to be more comfortable and less irritating, painful, and tiring as compared to invasive suctioning.

### Quality of Life (QoL)

MI-E contributed to an overall positive lifestyle impact in children with neuromuscular disease.<sup>2</sup>

MI-E has also been demonstrated to improve the ease of expectoration and contributed positively to QoL in children with neuromuscular disease (NMD) including spinal muscular atrophy.<sup>3</sup>

### Survivability

Both MI-E and NIV have been shown to increase survivability in individuals with neuromuscular diseases.<sup>4,5</sup>

## DECREASED

### Hospitalizations

MI-E may be associated with a decrease in the number of hospital admissions as well as length of stay in patients with NMD.<sup>3,6</sup>

Home use of a MI-E device by individuals living with NMD may have a potential impact on decreasing their health service utilization and risk of death.<sup>6</sup>

### Infections

In a pediatric patient population, use of MI-E was associated with a significantly decreased number of respiratory tract infections (RTIs) that required hospital admission as well as a shorter admission duration after the introduction of MI-E was found, with high patient satisfaction and low burden.<sup>7</sup>

### Ventilator Acquired Pneumonia (VAP)

Use of MI-E in critically ill patients has been independently associated with a decreased incidence of VAP.<sup>8</sup>

In critically ill, mechanically ventilated subjects, studies have demonstrated an increased sputum volume with MI-E compared to other interventions.<sup>9</sup>

#### References:

1. Garstang SV, Kirshblum SC, Wood KE. "Patient preference for in-exsufflation for secretion management with spinal cord injury." *J Spinal Cord Med* 2000;23(2):80-85.
2. Moran F.C.E., et al. Lifestyle Implications of Home Mechanical Insufflation-Exsufflation for Children with Neuromuscular Disease and Their Families. *Respiratory Care*, July 2015. Vol 60, No. 7.
3. Basaran, A. E., Basaran, A., Kazli, T., Yilmaz Durmus, S., Duman, Ö., Haspolat, Ş. & Bingöl, A. (2023). The Effect of a Mechanical Insufflation-Exsufflation Device on Quality of Life and Hospitalization of Children with Neuromuscular Disorders. *Akdeniz Tıp Dergisi*, 9 (1), 90-97
4. Khamankar N, Coan G, Weaver B, Mitchell CS. "Associative increases in amyotrophic lateral sclerosis survival duration with non-invasive ventilation initiation and usage protocols." *Front Neurol*. 2018;9:578
5. Lemoine et al. "Spinal muscular atrophy type 1: Are proactive respiratory interventions associated with longer survival?" *Pediatr Crit Care Med*. 2012;13(3): e161-e165.
6. Mahede T, Davis G, Rutkay A, Baxendale S, Sun W, Dawkins H.J., Molster C., Graham C.E. Use of mechanical airway clearance devices in the home by people with neuromuscular disorders: Effects on health service use and lifestyle benefits. *Orphanet Journal of Rare Diseases* (2015) 10:1 Article Number: 54. Date of Publication: 6 May 2015.
7. Veldhoen, E.S.; Verweij-van den Oudenrijn, L.P.; Ros, L.A.; Hulzebos, E.H.; Papazova, D.A.; van der Ent, C.K.; van der Pol, L.W.; Nijman, J.; Wösten-van Asperen, R.M. Effect of mechanical insufflation-exsufflation in children with neuromuscular weakness. *Pediatr. Pulmonol.* 2020, 55, 510-513
8. Kuroiwa R, Tateishi Y, Oshima T, Inagaki T, Furukawa S, Takemura R, Kawasaki Y, Murata A. Mechanical Insufflation-exsufflation for the Prevention of Ventilator-associated Pneumonia in Intensive Care Units: A Retrospective Cohort Study. *Indian J Crit Care Med*. 2021 Jan;25(1):62-66
9. Martinez-Alejos R, Marti JD, Li Bassi G, Gonzalez-Anton D, Pilar-Diaz X, Reginault T, Wibart P, Ntounopoulos G, Tronstad O, Gabarrus A, Quinart A, Torres A. Effects of Mechanical Insufflation-Exsufflation on Sputum Volume in Mechanically Ventilated Critically Ill Subjects. *Respir Care*. 2021 Sep;66(9):1371-1379. doi: 10.4187/respcare.08641. Epub 2021 Jun 8. PMID: 34103385.