



VG

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Volume Guarantee

VG mode provides greater lung protection through precise tidal volume control.

Volume Guarantee (VG)

The VG (Volume Guarantee) ventilation mode is available in Brina Neo, developed to provide greater lung protection through precise control of tidal volume, enabling the optimization of minute volume and ensuring safer and more effective neonatal mechanical ventilation.

What is VG mode?

It is a dynamic function designed to achieve a target tidal volume by automatically adjusting the pressure of each breath to compensate for changes in lung mechanics, leaks at the neonatal interface, and patient demand. This allows for stable, safe, and controlled ventilation.

VG supports the patient in controlled, assisted, and spontaneous ventilation modes, as it is available in PCV, SIMV(PCV)+PSV, and PSV modes. Its goal is to provide ventilation safety and avoid risky pressure or volume values, thus reducing the risk of complications.



How does Tecme's VG mode work?

The control is similar to a PRVC mode, with a key difference: volume measurement is performed through the proximal sensor, allowing a more accurate estimation of the air actually delivered to the patient and more effective leak compensation. Once activated, the ventilator begins with a pressure-controlled breath to estimate the patient's lung characteristics. Based on the volume obtained, it gradually adjusts the pressure to safely reach the target volume.

Key differences between VG and PRVC

In PRVC, volume is measured with an internal distal sensor, which may affect readings under certain conditions, especially in the presence of leaks.

In contrast, Brina Neo's VG mode uses the proximal sensor to estimate the actual volume reaching the patient, allowing for highly accurate cycle-by-cycle leak compensation.

This ensures that tidal volume remains stable, even under variable conditions, and reduces the risk of complications.

What makes it unique?

- Its ability to achieve lung-protective ventilation through efficient control of the delivered volume.
- The integration of the proximal sensor, which allows for leak compensation and accurate cycle-by-cycle measurements.
- Its capability to operate in different ventilation modes and support the patient throughout the process.

Key benefits

- Automatic pressure adjustment according to the target volume.
- Cycle-by-cycle leak compensation thanks to the proximal sensor.
- Precise pressure regulation with a resolution of up to 0,1 cm H₂O.
- Greater safety and effectiveness in neonatal invasive ventilation.
- Stable and continuous control even in patients with changing lung mechanics.

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