

Pressure Support Ventilation

How to set it up on the SLE5000 and SLE4000

SLE "How to's..." are published as a guideline by SLE Ltd, and should only be carried out by suitably trained and qualified staff.

It is strongly recommended all Operatives have read and understood the User Manual before attempting these tasks.

Description

When a patient attempts to breathe spontaneously through an endotracheal tube, the narrowed diameter of the airway results in higher resistance to airflow, and thus a higher work of breathing.

PSV was developed as a method to decrease the work of breathing in-between ventilator mandated breaths by providing an elevated pressure triggered by spontaneous breathing that "supports" ventilation during inspiration. Thus, for example, SIMV might be combined with PSV so that additional breaths beyond the SIMV programmed breaths are supported.

However, while the SIMV mandated breaths have a preset volume or peak pressure, the PSV breaths are designed to cut short when the inspiratory flow reaches a percentage of the peak inspiratory flow (e.g. 0 - 50%). Also, the peak pressure set for the PSV breaths is usually a lower pressure than that set for the full ventilator mandated breath.

Set PEEP and PIP



Set Max IT and Backup BPM



Start with a pressure that will achieve a tidal volume of 4-6 ml/kg (Start high and work down – this will recruit collapsed lungs)



Watch lung compliance: increase PS if compliance reduces (decreased tidal volumes) decrease PS if compliance improves (tidal volumes > 6ml/kg)



Look at pressure waveform, adjust pressure waveshape to achieve an optimal Inspiratory time



Address patient sedation

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It is strongly recommended that all treatments are tailored to the individual patient.

