Using the SLE 6000 Ventilator to deliver Volume Targeted Ventilation in Practice

Developed by the NWNODN using images from Blackpool Teaching Hospitals FT and Royal Bolton Hospital Neonatal Units

Setting up Volume Targeted Ventilation using the SLE 6000:

Firstly, ensure the patient is on a suitable ventilation mode. This would be either PTV or SIMV for conventional ventilation and is shown in the red circle at the top left. The modes can be found under the modes tab on the left hand side of the touch screen (highlighted in purple).

1. Please ensure the patient's weight is documented in patient's notes, and the most accurate weight is used. The target volume should be between 4-6mls/kg. Consider starting with a TTV of 5 ml/kg as a starting point.
2. Press and hold the VTV button on the bottom row. The box will highlight and you will need to use the arrows (shown in red) to the left of the green tick to adjust the target volume.

3. Ensure the volume to be delivered is set within this box. For example, if you baby weighs 2kgs and you would like a VTV of 5mls/kg, this box would say 10mls. This is NOT the mls/kg you wish to deliver.
4. Once you are happy with the volume you wish to deliver you must select this by pressing the green tick box. The volume will not save if you do not tick this box. If no action is taken, the selection will be cancelled after 15 seconds.
5. To turn off VTV, you should press and hold the VTV Target box until highlighted again and the box will display “off” where the volume was previously. You should then press the green tick again to turn the VTV off.
6. Once you have selected your Vte Target, you will need to INITIALLY set your PIP Max to 25mbar. Closely watch the delivered PIP for the next few minutes (as shown in the yellow box). Once you have ascertained the average PIP being delivered, set the PIP Max to 5mbar above this figure. This allows for the ventilator to increase the PIP to a slightly higher pressure, while still delivering the requested volume, allowing for fluctuations in lung condition.

7. Once you have done this, you should next ensure your parameters are set correctly. This is to ensure that should your VTV fall outside your desired range, the ventilator will alarm to notify

you. You should ensure the Vte limits as shown below are set to 3mls/kg and 8mls/kg respectively. This is to ensure the ventilator will alarm if volumes are not met.

8. To do this, you should select the alarms tab (highlight below) and check that under “limits”, the volumes are acceptable. Note that the alarms are in mls, and not mls/kg, therefore you will need to calculate 3mls/kg and 8mls/kg respectively. To change them, simply select the box and use the “+” and “-” arrows and confirm with the green tick.

The SLE 6000 interface on PTV with VTV:

This is the overall respiration rate, inclusive of the ventilator backup breaths and the patient's own efforts.

This is the delivered PIP per breath.

This is the delivered mean pressure per breath.

This is the backup rate for breaths. This is the minimum breaths that will be delivered per minute.

This is the maximum PIP that the ventilator will deliver in an attempt to reach the volume target. If the ventilator consistently delivers less than this volume, it will alarm to notify the user.

This is the volume target set by the user. If the ventilator consistently delivers less than this volume, it will alarm to notify the user.

The leak should be monitored closely, a high leak (>50%) can alter the efficacy of VTV.

This is the volume target set by the user. If the ventilator consistently delivers less than this volume, it will alarm to notify the user.