

# GUIDE FOR INITIAL SETTINGS FOR PRESSURE CONTROLLED VENTILATION FOR DRAEGER OXYLOG 3000 PLUS

Assumes patient is apnoeic from sedation & nursed at 30° to minimise aspiration.

Recommended for all **UNCUFFED** tubes

	<b>LUNG PROTECTIVE STRATEGY</b> (all other patients)	<b>OBSTRUCTIVE STRATEGY</b> (bronchiolitis/asthma)																						
Mode	PC SIMV+	PC SIMV+																						
VT	can't be set in PC mode- see P <sub>insp</sub>	can't be set in PC mode- see P <sub>insp</sub>																						
RR	see chart- then titrate to normal pCO <sub>2</sub> /pH	(1/3 normal RR)- see chart then examine <b>EXPIRATORY FLOW CURVES</b> - if breath stacking, ↓↓ RR by further 20% -permissive hypercapnoea (pH > 7.1)																						
P <sub>max</sub> (alarm)	≥40 (if alarms, follow instructions below)	≥40 (if alarms, follow instructions below)																						
FiO <sub>2</sub>	titrate using FiO <sub>2</sub> /PEEP scale → SpO <sub>2</sub> of 88-95% <table border="1" style="display: inline-table; margin: 5px;"> <tr> <td>FiO<sub>2</sub></td> <td>40</td> <td>40</td> <td>50</td> <td>50</td> <td>60</td> <td>70</td> <td>70</td> <td>70</td> <td>80</td> <td>90</td> </tr> <tr> <td>PEEP</td> <td>5</td> <td>8</td> <td>8</td> <td>10</td> <td>10</td> <td>10</td> <td>12</td> <td>14</td> <td>14</td> <td>14</td> </tr> </table>	FiO <sub>2</sub>	40	40	50	50	60	70	70	70	80	90	PEEP	5	8	8	10	10	10	12	14	14	14	minimal FiO <sub>2</sub> for SpO <sub>2</sub> 88-95%
FiO <sub>2</sub>	40	40	50	50	60	70	70	70	80	90														
PEEP	5	8	8	10	10	10	12	14	14	14														
PEEP		5 (default)																						
P <sub>insp</sub>	start at 20 then titrate to VT (6ml/kg IBW)- see chart	start at 20 then titrate to VT (6ml/kg IBW)- see chart																						
I:E	1:1.5 (default)	≥1:4																						
Slope	∫ (default)	∫ (ie: fast inspiratory flow rate)																						
Other	<ul style="list-style-type: none"> <li>if high PEEP results in ↓BP, give fluids &amp; inotropes keeping SBP as per chart</li> <li>if P<sub>max</sub> alarms, check for patient agitation/ tube obstruction. if not the cause, perform <b>INSPIRATORY HOLD MANOEUVRE</b>- if P<sub>plat</sub> &gt;30 ↓TV by 1ml/kg steps (min 4ml/kg)</li> </ul>	<ul style="list-style-type: none"> <li>sedate +++, avoid ongoing paralysis</li> <li>if ↓↓BP + difficult to ventilate, <b>disconnect</b> tube &amp; allow to expire stacked breaths</li> <li>if P<sub>max</sub> alarms, check for patient agitation/ tube obstruction. if not the cause, perform <b>INSPIRATORY HOLD MANOEUVRE</b>- if P<sub>plat</sub> &gt;30 ↓TV by 1ml/kg steps (min 4ml/kg)</li> </ul>																						

Further modifications depends on **hourly ABGs and haemodynamics**

Age/ IBW	RR (obstructive RR)	VT (6ml/kg)	Systolic BP
Term/ 3.5kg	40-60 (13-20)	20ml	≥ 50
3 months/ 6kg	30-50 (10-16)	36ml	≥ 50
6 months/ 8kg	30-50 (10-16)	48ml	≥ 60
1 year/ 10kg	30-40 (10-13)	60ml	≥ 65
2 years/ 13kg	20-30 (7-9)	78ml	≥ 65
4 years/ 15kg	20 (7)	90ml	≥ 70
6 years/ 20kg	16 (6)	120ml	≥ 75
8 years/ 25kg	16 (6)	150ml	≥ 80
10 years/ 30kg	16 (6)	180ml	≥ 85
12 years/ 40kg	16 (6)	240ml	≥ 90
14 years/ 50kg	16 (6)	300ml	≥ 90
17 years +/ 70kg	16 (6)	420ml	≥ 90

## Other patients (i.e. modifications from **LUNG PROTECTIVE STRATEGY**)

- **HEAD INJURY:** too much PEEP can ↓BP and thus ↓ cerebral perfusion pressure. PEEP=5(default) is OK. 30° head up. Aim for low-normal CO<sub>2</sub>
- **METABOLIC ACIDOSIS:** RR ≥ patient achieved, ET<sub>CO2</sub> ≤ patient achieved. Lighten sedation to allow patient to add additional breaths as required -add pressure support (**Δsupp=10, Trigger=2**) to these breaths as patient tired.

If patient is crashing....

- **Take the ventilator out of the equation-bag the patient to feel how they are to ventilate**
- Check the **tube**- displaced/ dislodged/ obstructed
- Check the **patient**- pneumothorax -bedside US/CXR and needle/finger thoracostomy
- Check the **ventilator**