

VDR®-4 Quick Start Guide for Adult Patients

Adult Starting Guidelines

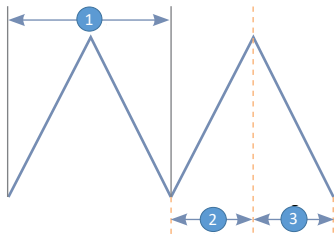
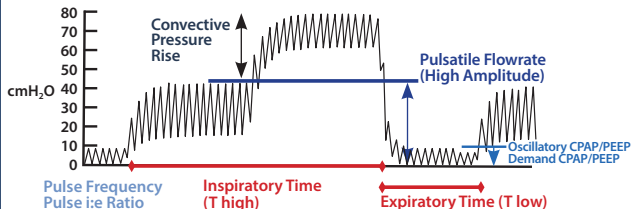
Control	Adult
Operating Pressure (psi)	40-42
Pulsatile Flowrate (cmH ₂ O)	28-32 (maximum 40-46)
Conventional Rate (bpm)*	15
Inspiratory/Expiratory time (seconds)	IT=2.0 seconds ET=2.0 seconds
Oscillatory CPAP/PEEP (cmH ₂ O)	10-12 (maximum 14-18)

NOTE: Total PEEP is the combination of Demand CPAP/PEEP and Oscillatory CPAP/PEEP

Demand CPAP/PEEP (cmH ₂ O)	0 (5-8 when needed)
Convective Pressure Rise (CPR)	Gradient of 3-5 to start, maximum of 8-10 between CPR and pulsatile flow
Pulse Frequency Rate (cycles)	500 (400-700), adjust in increments of 50 cycles
FiO ₂ (%)	Per Dr. orders

* Breaths per minute (bpm)

ANATOMY OF THE VDR®-4 WAVEFORM



Key: 1. Pulse-to-pulse time 2. Pulse 3. Pulse interval

Examples

Pulse-to-pulse time

- If frequency = 500, the pulse-to-pulse time is 0.12 s
- If frequency = 250, the pulse-to-pulse time is 0.24 s

Pulse interval

- At a frequency of 500, with a 1:1 pulse:interval ratio-
 - Pulse = 0.06 s, Interval = 0.06 s
- At a frequency of 250, with a 1:2 pulse:interval ratio-
 - Pulse = 0.08 s, Interval = 0.16 s

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Adult patient VDR®-4 blood gas manipulation

Decrease CO ₂ only	Increase Oxygenation with PaCO ₂ in Range	Increase PaO ₂ and Lower PaCO ₂
<p>a. ↑Pulsatile Flow by 2 cmH₂O up to maximum AIP 40-46 cmH₂O</p> <p>b. ↓Pulse Frequency by 50-100 cycles per minute to a minimum of 400</p> <p>c. Create moderate cuff leak; check infection control/VAP guidelines.</p> <p>d. Lengthen I time to 3.0 seconds and shorten E time to 1 second.</p> <p>e. Turn on convective pressure rise. Gradient between convective pressure rise and pulsatile flow = (3-10).</p>	<p>a. ↑FiO₂ if at low levels</p> <p>b. ↑Oscillatory CPAP/PEEP by 2 cmH₂O maximum (16-20 cmH₂O)</p> <p>c. If maximum Oscillatory CPAP/PEEP is reached:</p> <ul style="list-style-type: none"> • ↑Pulse Frequency by 50-100 cycles per minute to a maximum of 700 • May cause some increase in CO₂ <p>d. ↑Time at P High</p> <ul style="list-style-type: none"> • ↑IT by 0.5-1.0 seconds up to 3.5 seconds maximum <p>e. Turn on Convective Pressure Rise. Gradient between Convective Pressure Rise and Pulsatile Flow = (3-10).</p> <p>⇒BE PATIENT– it can take up to 2-4 hours for recruitment to take place.</p>	<p>a. ↑Pulsatile Flow by 2 cmH₂O up to maximum AIP 40-46 cmH₂O</p> <p>b. ↑ Oscillatory CPAP/PEEP by 2, but keep the gap between Pulsatile Flow and Oscillatory CPAP/PEEP the same with adjustment. If the gap is decreased, then CO₂ removal may not be as effective.</p>

NOTE: These are merely suggested guidelines based on clinical consensus.