**Guidelines for NON - CRITICAL CARE staff**

**Use of APRV ventilation in Intensive Care**

- APRV (Airway Pressure Release Ventilation) is an advanced respiratory ventilation therapy for severe respiratory failure with refractory hypoxemia.
- APRV will be prescribed and set by a SENIOR clinician – Consultant or Registrar level

**Non-ICU staff must not alter any settings**

### MAIN SETTINGS FOR APRV

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>THigh</td>
<td>Set at 4-8 secs - period of time that lung is inflated</td>
</tr>
<tr>
<td></td>
<td>used to control O2 and CO2 levels</td>
</tr>
<tr>
<td>TLow</td>
<td>set 0.4 - 0.8 seconds - time for air to 'escape' the lung</td>
</tr>
<tr>
<td></td>
<td>time for CO2 clearance</td>
</tr>
<tr>
<td>PHigh</td>
<td>set from 20-30mbars - used to create lung inflation and improve gas exchange</td>
</tr>
<tr>
<td></td>
<td>pressure held throughout THigh to 'open' the lung</td>
</tr>
<tr>
<td>PLow</td>
<td>ALWAYS set at 0mbars</td>
</tr>
</tbody>
</table>

**NB: we do NOT set a respiratory rate in APRV**

### ADDITIONAL POINTS:

- ‘Tube compensation’ must be set at 100% and for correct tube size.
- Short catheter mounts must be used. ‘Dead space’ should be minimised.
- ET tube should be CLAMPED when breaking circuit for HME or catheter mount change.
- Patient respiratory pattern may look ‘odd’ as this therapy does not set a ‘normal looking’ respiratory pattern – there are not traditional breaths in & out.

**ICU Guidelines for APRV are found on the info ICU page:**

Infonet > critical care unit > clinical guidelines > APRV

**A simple PowerPoint guide to APRV is on the TDrive:**

TDrive > critical care units > EDUCATION (nurses) > ventilation > APRV

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DAILY MANAGEMENT

• Confirm OXYGEN, CO2, SaO2 and pH targets on daily ward round.
• Patient may need regular nebs (bronchodilators and saline) to keep tube and airways clear and ensure good lung deflation.
• Patient is a HIGH RISK airway – someone MUST hold/manage the OETT when repositioning the patient.
• If you need to break the circuit to change an HME/suction set/catheter mount – this is a 2 person technique and the ET tube must be clamped whilst you do this.

SAFETY FIRST!

if the patient condition changes
seek SENIOR advice: nurse in charge/consultant/Registrar

SAFETY FIRST!

turning/repositioning patient
a senior member of staff must manage the airway during procedure

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