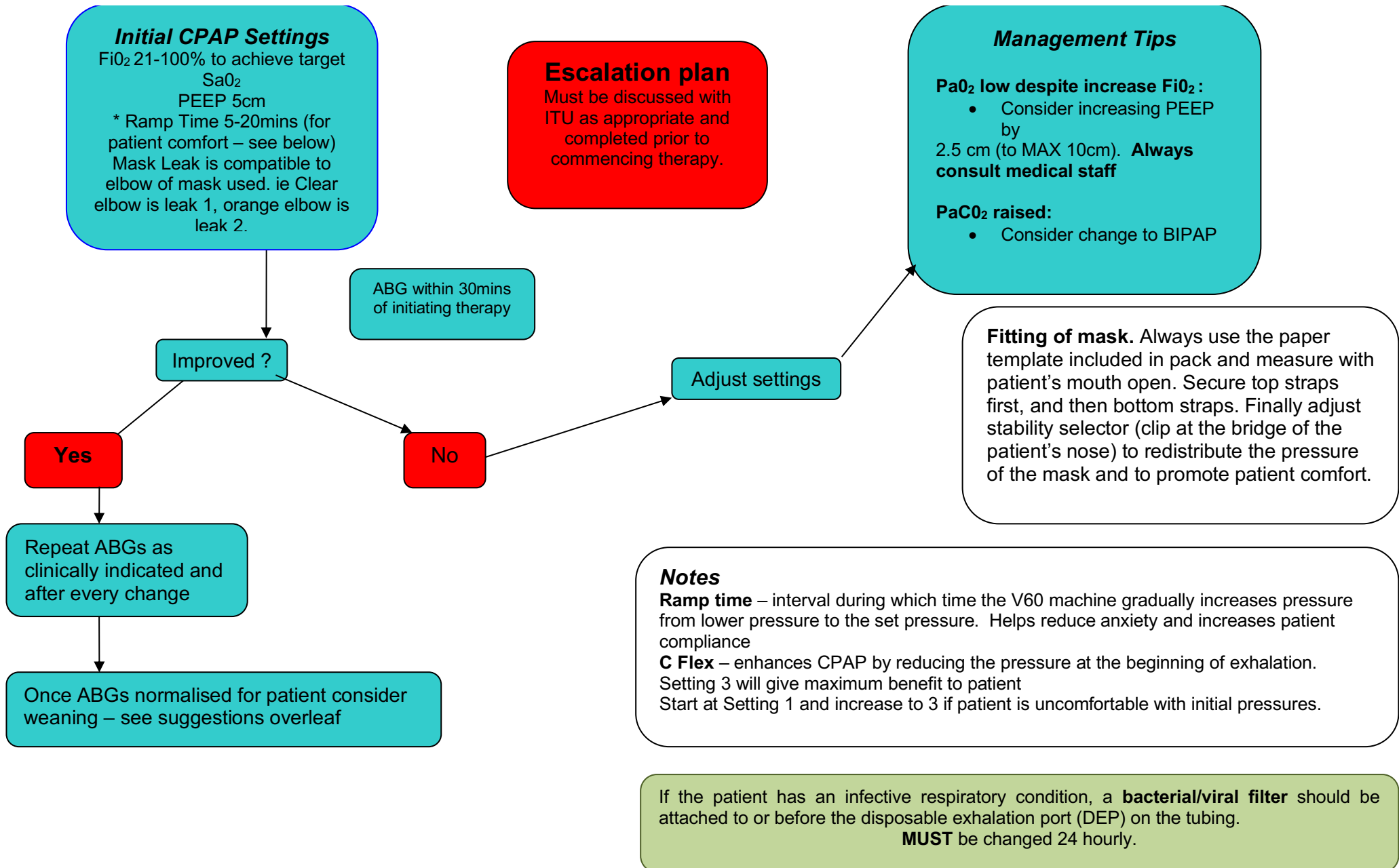


Type 1 Respiratory Failure – CPAP Guidelines



Critical Care Guidelines FOR CRITICAL CARE USE ONLY

Troubleshooting

Persistent hypoxaemia:

Check correct O₂ into the circuit

If there is OSA or atelectasis consider increase in CPAP

Deteriorating clinical condition with hypoxaemia should lead to urgent re-evaluation with reference to the agreed escalation plan

Mask Leak:

Large leaks can cause inefficient ventilation, eye irritation, noise, dry mouth and nasal symptoms. Consider trying different masks and headgear, and customised foam or granuflex for comfort

Aim for leak of 20- 40L for patient comfort. The V60 can compensate up to 60L

Asynchrony between patient and the machine:

Check correct tubing is being used

If there is feeble inspiratory effort it may not trigger the machine: increase in CPAP might help

Difficulty inflating the chest:

Maybe due to bronchospasm, mucus plugging, pneumothorax, atelectasis/collapse, consolidation, pulmonary oedema: Clinical examination is necessary and possible CXR

Rarely is due to circuit tube obstruction/kinking: Check the circuit

Nasal problems:

Is there nasal soreness/redness/nasal bridge sores? Appropriate padding or change of mask is required

Is there rhinitis/nasal crusting/bleeding? Consider humidification

Dry mouth:

Regular mouth care is required.

Gastric distention:

Try to reduce CPAP if possible and consider nasogastric tube (accepting a small leak)

Patient position:

Patient should be positioned sitting upright with head up

Consider additional support (soft collar/rolled up towel) if necessary

Non cooperative/aggressive behaviour:

Maybe due to hypoxaemia, consider holding the mask. Relatives may help. Adjust settings as necessary.

Sedation must be discussed ONLY with Senior Medical Staff: Haloperidol might reduce agitation and increase NIV tolerance. Or consider oramorph.

Weaning Considerations

Patients who appear to benefit from CPAP during the first few hours of treatment should receive CPAP for as long as possible (min 6 hours). In patients who have clinically improved (i.e. improved PaO₂ (therefore FiO₂ requirements minimal), physiological condition stabilised, CPAP levels minimal), it is appropriate to start a weaning plan. The gradual reduction of the duration of the treatment should be determined by clinical improvement.

Recommendations

- Ideally during the day
- CPAP levels must be at a minimum before considering weaning
- Trial extended periods off CPAP for meals, physio and nebuliser therapy first
- Focus on extending the time off CPAP
- After successful weaning during the day some patients will require an additional time on CPAP

Always closely monitor patients during periods of weaning and if condition worsens consider restarting CPAP as soon as possible and inform medical staff. Always consider the indications (see indications for CPAP) for CPAP and if patient develops signs of hypoxia treat immediately.

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