

Extra corporeal CO₂ removal

– a quick guide to the haemolung

P J Zolfaghari

Consultant in Critical Care Medicine

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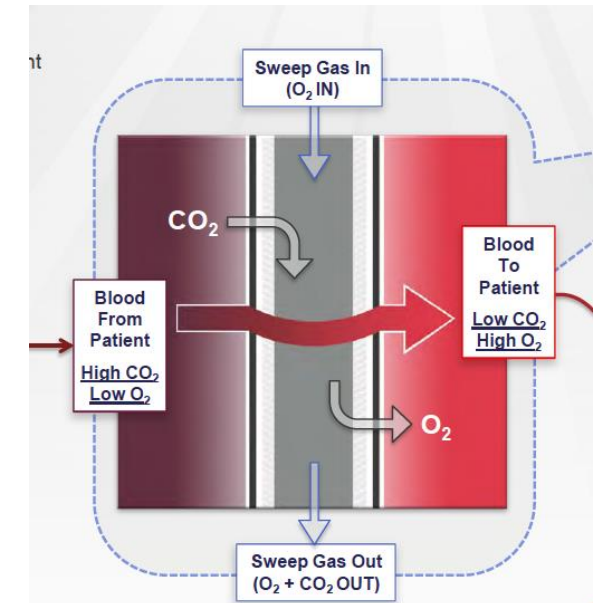
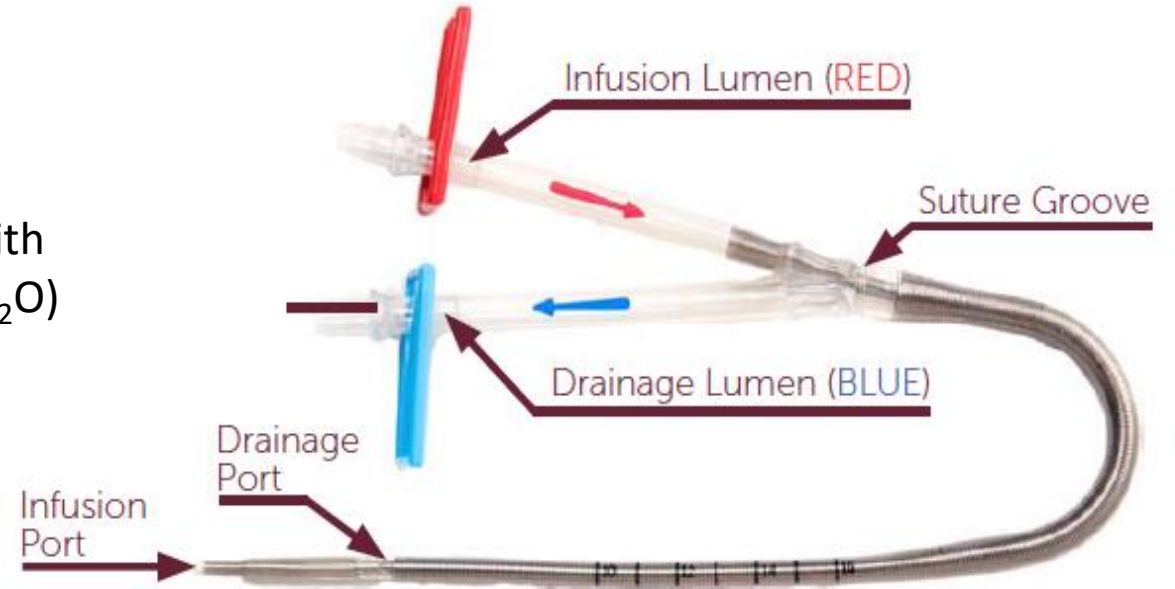
Haemolung

Indications:

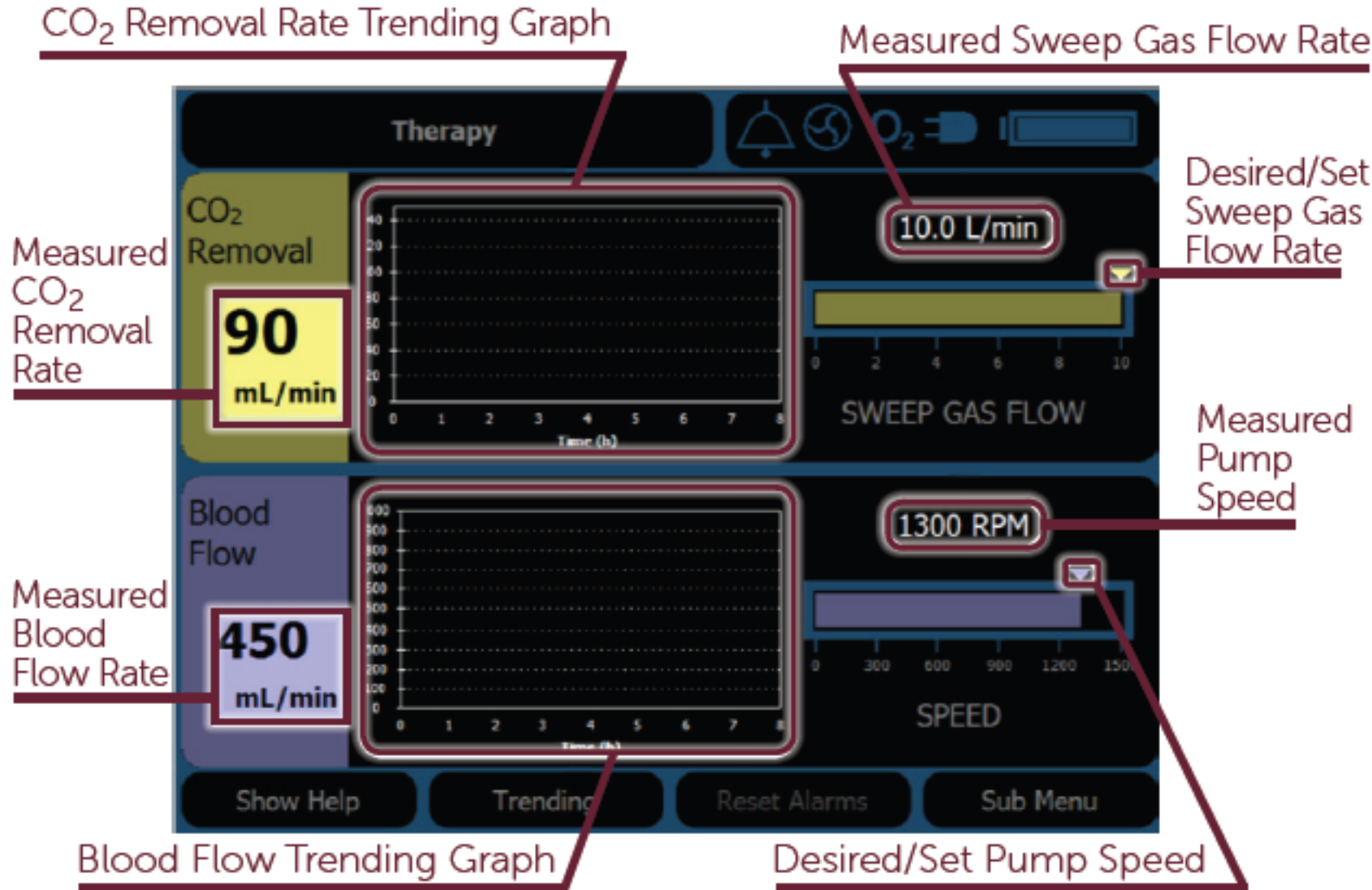
- Hypercapnoeic respiratory failure
- Inability to achieve adequate lung protective ventilation with conventional ventilation (6ml/kg, Plateau pressure <30cmH₂O)
- No contraindications to anticoagulation
- The patient should be expected to survive.

3 components:

- Haemolung catheter (15.5 F)
- Membrane oxygenator
- Controller module



Haemolong controller



Increasing sweep gas flow rate increases CO₂ removal. Use lowest setting that provides adequate CO₂ removal. Sweep speed varies from 0 – 10L/min

Increasing blood flow rate by varying pump speed increases CO₂ removal. Use maximal blood flow possible. Pump speed varies from 500 – 1400 RPM

Considerations during use:

- Maintain anticoagulation using heparin infusion as per unit protocol (APTT_r 1.5 to 2.5)
- Maintain conventional lung protective ventilation
- Maintain treatment of underlying lung disease
- Consideration of appropriateness of further escalation. No contraindication to proning. Further deterioration would warrant ECMO referral
- The therapy is set as maximal and should not require further adjustment until weaning
- There are simple instructions to troubleshoot alarms and there is a 24 hour phone line (see the device)
- Weaning therapy can be achieved by reducing sweep gas flow while blood flow is maintained to assess the patients ability to clear CO₂

- Alung website has many videos and educational material:
- <http://www.alung.com/>