

## Pedi-cap

This device detects exhaled CO<sub>2</sub>. Detection of exhaled CO<sub>2</sub> can provide secondary confirmation of correct endotracheal tube placement, particularly when clinical assessment is equivocal

Successful intubation is usually associated with :

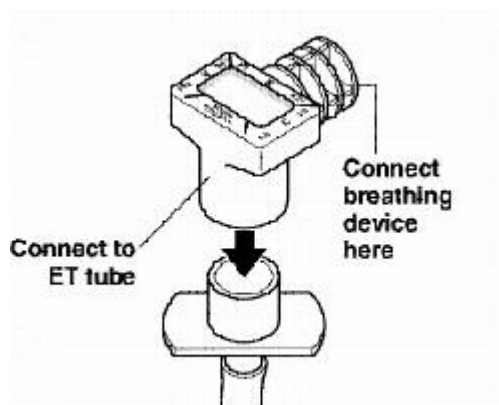
- symmetrical chest wall movement as pressure is applied
- heart rate usually improves within about 30 seconds of effective ventilation

### Indications for Pedi-cap use:

- For all preterm babies (28 weeks or less) prior to prophylactic surfactant administration.
- Whenever there is uncertainty about ET tube position

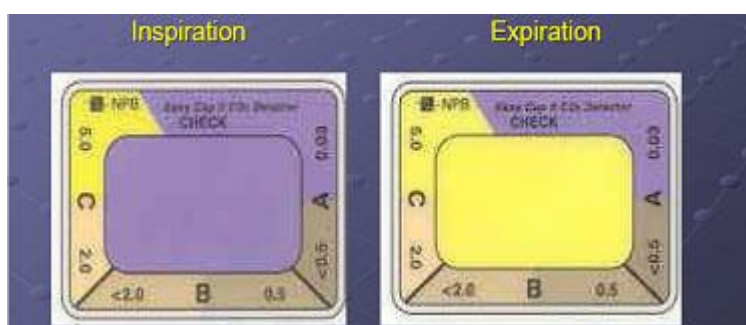
### How to connect:

The Pedi-Cap is inserted between the outer end of the ET tube and the manual ventilation device (e.g. Neopuff or bag & mask).



### Interpreting the Pedi-Cap:

After six positive pressure breaths, if ventilation is effective, then the window colour changes from violet to yellow.



### **Reasons for the window not changing colour**

Ineffective ventilation due to

- Insufficient pressure (tidal volume) delivered
- Insufficient breaths delivered – less than six breaths
- Large air leak around the ET tube
- Oesophageal intubation (although might get minimal colour change on Pedi-Cap through CO<sub>2</sub> washout from oesophagus)

Low pulmonary perfusion due to

- marked bradycardia
- cardiac arrest

### **If the pedicap does not change colour**

- Do not assume that the tube is in the wrong place
- Turn up the inflation pressure and see if this helps first

### **Pedi-Cap Product details**

- Weight < 5g
- Dead space: 3ml (do not leave in-situ for long periods)
- Resistance 2 - 3 cm H<sub>2</sub>O at 10 litres/minute (ie negligible)
- Can be used intermittently for up to 2 hours
- Single patient use