

**Critical Care Guidelines – Use of Passy Muir Valve
FOR CRITICAL CARE USE ONLY**

Guideline for use of Passy Muir Valve



The Passy Muir Valve (PMV) is a speaking valve which can be used with ventilated and self ventilating patients with a tracheostomy. The PMV is always in a closed position until the patient inhales, and thus allows air to reach the vocal cords, nose and mouth on exhalation. The design of the valve restores the positive airway pressure in the lungs.

Indications for use

- ☐ Patient awake and trying to communicate
- ☐ Manageable tracheal secretions
- ☐ As part of a weaning plan for difficult to wean patients

Patients are assessed on an individual basis as to whether the PMV would be of benefit. This can be carried out with senior nursing or physiotherapy staff. Plans to use PMV should then be discussed with the consultant in charge.

Contraindications and cautions to use

- ☐ Severe upper airway obstruction
- ☐ No/inadequate cuff leak
- ☐ Cardiovascular instability

- ☐ Less than 48 hours post tracheostomy insertion/change
- ☐ Drowsy patients/low GCS
- ☐ Bronchospasm
- ☐ Thick or excessive secretions
- ☐ Patient unable to tolerate cuff deflation
- ☐ Vomiting/high aspirates/risk of aspiration
- ☐ Need for nebulised medication- nebulisers should not be given through the PMV as they can affect the function of the membrane within the valve
- ☐ Patients requiring high level ventilator support e.g. high levels of FiO₂ or PEEP
 - As a guide, if PS> 15cmH₂O PMV may be poorly tolerated

Equipment required

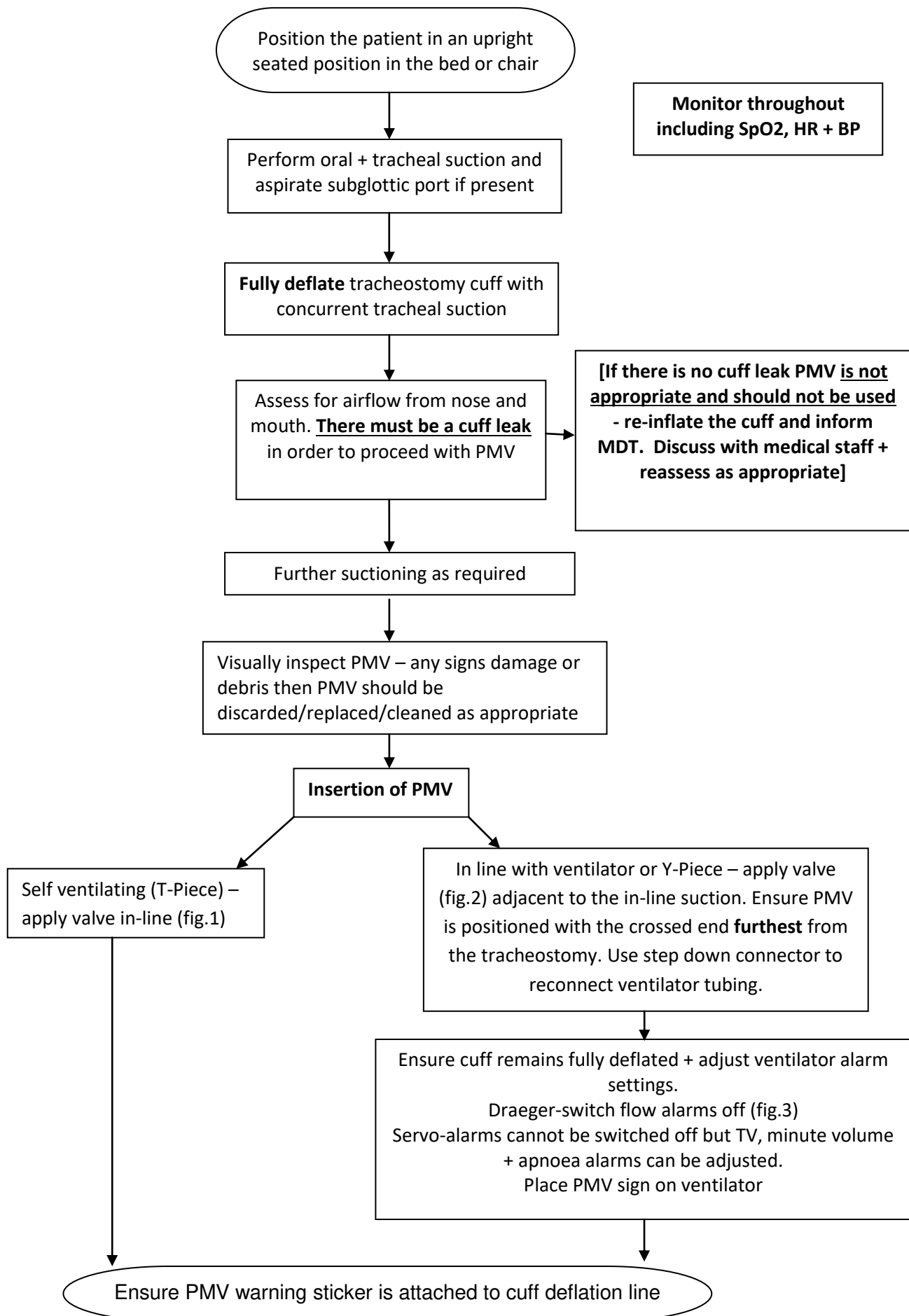
- ☐ PMV
- ☐ Green safety label to attach to cuff
- ☐ PPE (aprons, gloves, face visors)
- ☐ Suction equipment
- ☐ Stethoscope
- ☐ 10ml syringe x 2
- ☐ Cuff pressure manometer
- ☐ Step down connector (Intersurgical Connector 22F-15M Product code 1962000)

Patient assessment and preparation

Patient observations should be monitored before, during and after PMV placement

- ☐ Establish patient consent unless AWI in place
- ☐ Explain the procedure to the patient
- ☐ Wash your hands and apply apron, gloves and visor

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- ☐ The Passy Muir speaking valve may be left in situ as indicated in the patient plan as long as the patient is comfortable and not showing signs of distress, fatigue or clinical deterioration.

Remember to remove PMV for nebuliser treatments and if the patient is sleeping

- ☐ To remove the PMV; remove the PMV from the ventilation circuit and reconnect circuit, reinflate the tracheal cuff and return ventilation settings to previous settings / parameters if using in-line with ventilator

General principles

- ☐ Humidification should always be included in PMV set up
 - Via heated humidified circuit (T-piece or Y-piece) as picture 1
 - Or as part of ventilator circuit as picture 2
- ☐ Closed suction can be incorporated into PMV set up

Discontinuing treatment

- ☐ Signs of increased work of breathing- increased respiratory rate, increased use of accessory muscles, changes in colour, becoming clammy/sweaty
- ☐ Desaturation
- ☐ New cardiovascular instability

Cleaning

- ☐ After each use the PMV should be cleaned in warm soapy water, rinsed thoroughly and left to air dry.
- ☐ The device is single patient use and should be stored in a pot with date of issue clearly indicated.
- ☐ The PMV can be used for at least 2 months before it should be replaced.

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Fig 1. PMV set up- tracheostomy with humidified oxygen therapy via T-piece

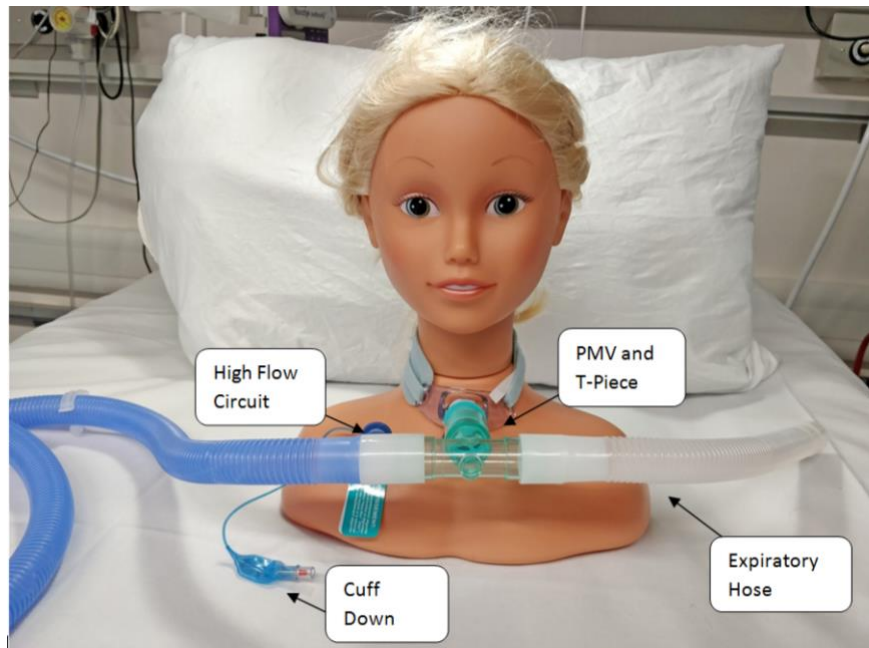
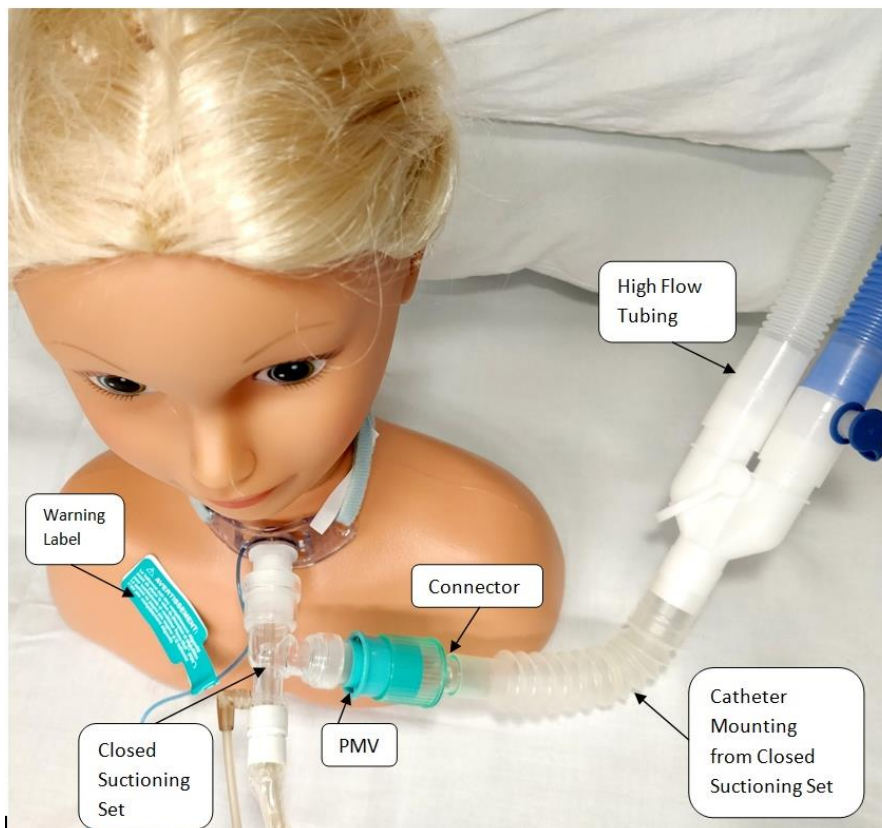


Fig 2. PMV set up- tracheostomy with humidified oxygen therapy via Y-piece or in line with ventilator circuit



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Figure 3 Location of expiratory flow monitoring, listed under 'Sensors/Parameters' and arrows to show 'off' and confirm with dial



Passy Muir Valve (PMV) in ventilator circuit at present.

This means cuff is deflated and expiratory flow monitoring is off.

Do not leave patient unattended when PMV in situ.

When removing PMV, please ensure you re-inflate cuff and return ventilation settings to previous settings / parameters and ensure expiratory flow monitoring is turned back on.



