

Passy-Muir Valve Trial: CRCC Protocol

Objective

To ensure correct use and patient's tolerance of Passy-Muir Valve.

Policy

Set up of Passy-Muir Valve will be performed on order of a physician.

Responsible Personnel

Respiratory Clinician

Special Considerations

- Passy-Muir Valve (PMV) enables patient to vocalize without use of fingers or trach caps.
- PMV is a "no leak" one-way speaking valve that allows air in through the trach on inhalation and blocks air escape through the trach on exhalation. This allows patient to move air up past vocal cords so that sound may be produced.
- Respiratory clinician will go out to home to instruct caregivers on use of PMV and the dangers involved in using Passy-Muir Valve.
- Respiratory clinician will make up to 3 visits to ensure patient tolerates using the PMV well and that caregivers understand and are comfortable with application of PMV.
- For some patients this may be the first time they have exhaled past the vocal cords. Because of this, many patients find the PMV very uncomfortable the first few times they use it. The patient may cry, attempt to pull the PMV off, blow it off, have central cyanosis and/or act as though they can not breathe at all. It is important to pay attention to these signs.
- Some trials may last only a few seconds. Distractions or goal setting can play an important part to the success of the trial. Page 16 of the manufacturer's hand book addresses this transition well.
- If the patient does not show signs of tolerating the PMV or if the caregivers are not comfortable or capable with the trial the physician must be notified to give further direction.

Supplies/Equipment Needed

- Passy-Muir Valve
 - Teal In-Line PMV (# PMV007) and Cuff adapter (# 1421)
 - Clear Low profile PMV (# PMV2000)
 - Purple Low profile PMV (# PMV2001)

- Oxygen Adapter for PMV (# PMA2000)
- Passy-Muir Manufacturer's Instruction Manual
- Oximeter

Procedure

1. PHS receives order from physician for Passy-Muir Valve trials.
2. Following clinician contacts patient/family/care provider to schedule date and time of education and first trial.
3. Clinician gathers equipment and supplies.
4. At the patient's site of care, clinician practices hand hygiene according to PHS infection control policy.
5. Clinician sets up equipment with parameters as ordered by physician as follows:
6. Determine which PMV will be used for trial.
 - a. Teal In-line PMV is for patient who is on vent. **NOTE!** A cuff adapter will be necessary to place PMV inline with patient tubing circuit.
 - b. Clear or purple low profile PMV attaches directly to hub of trach tube in place of HME or cap.
7. Inform caregiver and patient on proper use of PMV. Review manufacturer's hand book with caregiver before first trial. **IMPORTANT!** NEVER use PMV while patient is sleeping.
8. Connect patient to oximeter.
9. Using Teal In-Line PMV with vent:
 - a. Record heart rate, respiratory rate, oxygen saturation and PIPs on vent before using PMV. **NOTE!** There is a place to record this information in manufacturer's hand book on page 7.
 - b. Deflate trach tube cuff if cuffed trach is being used.
 - c. Place PMV in-line with patient tubing circuit using cuff adapter.
 - d. Record heart rate, respiratory rate, oxygen saturation and PIPs on vent during PMV trial. **IMPORTANT!** Remove PMV if child appears to be in distress.
10. Using Clear or Purple PMV to trach:
 - a. Record heart rate, respiratory rate and oxygen saturation before placing PMV on patient. **NOTE!** There is a place to record this information in manufacturer's hand book on page 7.
 - b. Deflate trach tube cuff if cuffed trach is being used.
 - c. Attach PMV to hub of the trach tube using firm ¼ twist clockwise motion with one hand while holding onto neckplate of trach tube with other hand.

d. Record heart rate, respiratory rate, oxygen saturation during PMV trial.

IMPORTANT! Remove PMV if child's appears to be in distress.

11. At the patient's site of care (home, hospital, or other care facility), clinician will provide education and leaves *PHS Patient Handbook* materials on the equipment/plan of treatment with patient family.
12. Respiratory clinician will make up to 3 visits to ensure patient tolerates using the PMV well and that caregivers understand and are comfortable with application of PMV.
13. Return demonstration by caregiver/family to ensure understanding.
14. Trials will be charted by clinician within 2 business days of initial set up and supply form generated as needed.

Follow-Up Responsibilities

Director of Respiratory Service