Introduction

Pressure should be carefully monitored while ventilating patients in CPAP with PSV. The ability of the ventilator to maintain the desired peak inspiratory pressure during CPAP varies depending upon the ventilator, and the patient's compliance and resistance. Peak pressures were evaluated on the Newport HT 50 and the Pulmonetics LTV 1000.

Method

Each ventilator was connected to the Hans Rudolph Electronic Breathing Simulator (HR 1101). HR 1101 settings: CPAP 5 cm H\(_2\)O; PSV 10 cm H\(_2\)O; trigger 1.0. PIP was measured as a five-breath average while C\(_{ST}\)O is a common absolute necessity to maintain the set peak pressure should be evaluated on a patient-to-patient basis along with the brand of ventilator to be used.

Results

At C\(_{ST}\)O/L/sec the average PIP was 13.45, 14.92, and 14.98 cm H\(_2\)O, respectively. At a C\(_{ST}\)O/L/sec of 40 mL/cm H\(_2\)O the average PIP was 13.3, 14.83, and 14.99 cm H\(_2\)O, respectively. At a C\(_{ST}\)O/L/sec of 20 mL/cm H\(_2\)O, respectively. Because the PIP was averaged over five consecutive breaths, we are unable to see the maintained PSV level at 10 cm H\(_2\)O; PSV 10 cm H\(_2\)O; trigger 1.0. PIP was measured as a five-breath average while C\(_{ST}\)O with PSV of 10 cm H\(_2\)O is a common absolute necessity to maintain the set peak pressure should be evaluated on a patient-to-patient basis along with the brand of ventilator to be used.

Conclusion

The Newport HT 50 maintains the pressure close to the set PIP throughout inspiration, which is considered normal. The PIP measured at a C\(_{ST}\)O/L/sec of 20 and 40 mL/cm H\(_2\)O throughout inspiration. This is considered normal. The peak inspiratory pressure for each ventilator is displayed in Table 1. Graph 1 and 2.

Graph 1

Graph 2

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