Unit 9 EZ-PAP Therapy

GOAL

On completion of this unit, the student should have an understanding of operation and proper use of equipment to perform EZ-PAP therapy.

COMPETENCIES

- 1. Identify the components of the EZ-PAP device.
- 2. Explain the function and mechanics of the EZ-PAP device.
- 3. Assemble the EZ-PAP device for use.
- 4. Measure expiratory pressures at various gas liter flows.
- 5. Complete appropriate procedures in the clinical simulation lab.

EQUIPMENT

- 1. EZ-PAP device
- 2. Mouthpiece
- 3. Pressure gauge with tubing
- 4. Nose clips, normal saline
- 5. EZ-PAP stand with high pressure gas hose

EXERCISE A – EZ-PAP COMPONENTS

- 1. Identify the following components on an EZ-PAP set-up and label Fig. 1.
 - a. small volume nebulizer d. pressure monitor port
 - b. mouthpiece
- e. compressed gas inlet port
- c. ambient air inlet



EXERCISE B - EFFECT OF GAS FLOW ON EXPIRATORY PRESSURE

- 1. Connect 1 end of tubing to a flowmeter that is connected to a 50 psi gas outlet.
- 2. Connect the patient end of the tubing from the flowmeter to EZ-PAP's gas inlet port.
- 3. Connect the device's pressure port to a pressure gauge with tubing.
- 4. Attach the mouthpiece to the rounded end of the device. Serrated end is to be exposed to ambient air at all times (do not occlude).
- 5. Add 3 ml of normal saline to the small volume nebulizer c.
- 6. Connect the tubing from the SVN to the SVN nipple on the EZ-PAP stand.
- 7. Connect the tubing from the compressed gas inlet port to the flowmeter on the EZ-PAP stand.
- 8. Set the flow on the flowmeter at 5 L/min.
- 9. Turn on the flow to the SVN with the toggle switch.
- 10. Instruct your lab partner to relax while breathing on the device while you note the pressure on the gauge. Record the pressure in the table below.
- 11. Set the flowmeter at 7, 10, and 12 L/min, then record the expiratory pressure level while your partner is breathing on the EZ-PAP device.

| FLOWMETER SETTING (L/min) | EXPIRATORY PRESSURE (cmH2O) |
|---------------------------|-----------------------------|
| 5 | |
| 7 | |
| 10 | |
| 12 | |

EXERCISE C – USE OF EZ-PAP THERAPY

- 1. With your lab partner, demonstrate proper techniques for administering EZ-PAP therapy.
- 2. Complete the EZ-PAP procedure in the clinical simulation lab.

WORKSHEET

- 1. What are the indications for EZ-PAP therapy?
- 2. How can the effectiveness of EZ-PAP therapy be determined?
- 3. During EZ-PAP therapy, a patient suddenly complains of sharp, left-sided chest pain. She becomes dyspneic and cyanotic. How would you assess this patient's condition, and what actions should be taken?

- 4. A patient is not able to keep his lips sealed throughout the respiratory cycle during an EZ-PAP treatment. What can be done to facilitate therapy?
- 5. If a patient complains of dizziness or light-headedness during therapy, what is the most likely cause?
- 6. Describe the principle of operation of the EZ-PAP device.