

**PERFORMANCE EVALUATION #34**  
**7200 Ventilator Set Up**

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

INSTRUCTOR: \_\_\_\_\_

	0	1	2	3	NA
1. **Identify and name the filters on the 7200ae.					
2. **Explain how each filter is sterilized.					
3. **Trace the gas flow through the ventilator circuit.					
4. **Identify the following a. Alarm volume control b. On – off switch c. EST button					
5. **Perform a TEST					
6. **Identify how options available on the 7200 ae can be quickly identified.					
7. Answer oral review questions.					

**Students must pass all critical steps with a score of 2 or 3**

**ORAL REVIEW QUESTIONS**

1. Name the four ventilator tests on the 7200ae ventilator and which ones are therapist initiated.
2. Explain each of the following including length of time needed to run the tests:
  - a. POST
  - b. QUEST
  - c. TEST
  - d. Lamp Test
3. What do the initials POST, QUEST and TEST stand for?
4. During the EST, explain how the leak test is performed.
5. Explain what the tubing compliance factor means.
6. Explain when TEST and QUEST should be performed.
7. Explain what should be done if TEST or QUEST fails.
8. Which key is depressed when you wish to bypass QUEST to perform a TEST?
9. Which key is depressed to bypass the nebulizer during QUEST/TEST?
10. Explain why the patient’s exhaled gas is heated back to body temperature when returning to the ventilator.

**PERFORMANCE EVALUATION #35**  
**7200ae Ventilator Initiation**

NAME: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 INSTRUCTOR: \_\_\_\_\_

	0	1	2	3	NA
1. **Demonstrate the ability to adjust the following parameters a. Tidal volume b. Respiratory rate c. Peak flowrate d. PEEP e. Sensitivity f. FiO <sub>2</sub> g. Mode selector h. Flow waveform i. Low pressure alarm j. High pressure alarm					
2. **Connect to the test lung and adjust the following parameters: a. Apnea parameters b. Audible alarm volume					
3. **Identify the location of the patient data, alarm data and ventilator data on the keyboard.					
4. **Demonstrate how to measure the static or plateau pressure during volume ventilation a. Observe the pressure-time, volume-time and flow-time waveforms.					
5. **Turn on and off the 100% oxygen.					
6. **Select the waveforms. a. Change the scale on each of the waveforms. b. Identify the components of the waveforms.					
7. Answer oral review questions					

Students must pass all critical steps with a score of 2 or 3

**ORAL REVIEW QUESTIONS**

1. Identify the control variable.
2. Identify the trigger variable.
3. Identify the cycle variable.
4. Identify the limit variable.
5. Identify the baseline variable.
6. Which parameter changes with changes in the patient's compliance and/or Raw?
7. Explain how the following is calculated.
  - a. Dynamic compliance
  - b. Static compliance
  - c. Airway resistance
8. Explain how to calculate the volume lost in the ventilator circuit given the TCF.
9. Explain two problems associated with volume ventilation.
10. Explain which parameter changes will affect the PIP.
11. Explain where the high and low pressure alarms should be set.

**PERFORMANCE EVALUATION #35**

**7200ae Ventilator Initiation**

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NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

INSTRUCTOR: \_\_\_\_\_

Given the following, establish the appropriate settings on the 7200ae ventilator

Patient is 70 Kg

TCF: 3 mL/cm H<sub>2</sub>O

Mode: CMV

Tidal volume: 700 mL

Respiratory Rate: 12/min

Peak Flowrate: 60 L/min

Sensitivity: -2 cm H<sub>2</sub>O

FiO<sub>2</sub>: .24

PEEP: +10 cm H<sub>2</sub>O

Flow waveform: Decelerating

Set the high and low pressure alarm appropriately.

**PERFORMANCE EVALUATION #36**  
**7200ae Ventilator – Advanced**

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

INSTRUCTOR: \_\_\_\_\_

	0	1	2	3	NA
1. **Place the patient in A/C–VC.					
2. **Place the patient in CPAP mode.					
3. **Activate Pressure Support Ventilation.					
4. **Activate Flow Triggering.					
5. Answer oral review questions.					

**Students must pass all critical steps with a score of 2 or 3**

**ORAL REVIEW QUESTIONS**

1. Explain where to set the high and low pressure alarm.
2. Explain the two parameters set in Function #50 Flow-by.
3. Explain the parameter set in Function #10 PSV.
4. Explain the flow waveform pattern seen in PSV.
5. Explain which modes you can use PSV.
6. Explain in which modes you can use Flow-by.
7. Classify the following modes of ventilation:
  - a. CMV–VC
  - b. CPAP
8. Explain which flow waveform pattern gives you
  - a. The shortest inspiratory time
  - b. The highest PIP
  - c. The highest MAP

**PERFORMANCE EVALUATION - #28  
NON-INVASIVE VENTILATION (BiPAP)**

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

INSTRUCTOR: \_\_\_\_\_

**Non-Invasive Ventilator Used:** \_\_\_\_\_

	0	1	2	3	NA
1. Verifies, interprets, and evaluates physician's order.					
2. Selects, gathers and assembles Non-Invasive Ventilator (NIV) circuitry.					
3. Washes hands.					
4. Fills humidifier with sterile, distilled water (if used).					
5. Identifies patient.					
6. Introduces self and department.					
7. Assesses patient.					
8. Explains therapy and confirms patient's understanding.					
9. Measures for appropriate size of patient interface with sizing gauge and checks fit of selected interface to patient's face.					
10. Determines appropriate spacer (if needed).					
11. Activates power to Non-Invasive Ventilator.					
12. Adjusts NIV to ordered IPAP level, occludes circuit and verifies proper level on manometer or digital display.					
13. Adjusts NIV to ordered EPAP/CPAP level, occludes circuit, and verifies proper level on manometer or digital display.					
14. Adjusts NIV to ordered Respiratory Rate setting.					
15. Selects oxygen flow rate in liter/minute per orders.					
16. Adjusts NIV to ordered mode.					
17. Places interface on patient's face and adjust to ensure a comfortable fit.					
18. Instructs patient to breath through nose while keeping mouth closed.					
19. Confirms IPAP level and adjusts as required					
20. Confirms EPAP level and adjusts as required					
21. Verifies leak level.					
22. Sets high-pressure alarm setting to appropriate level.					
23. Sets low pressure alarm setting to between IPAP and EPAP levels.					
24. Sets alarm delay per departmental policy					
25. Assess patient. a. Comfort level. b. Respiratory Rate c. Exhaled Volume d. Heart Rate e. Blood Pressure					
26. Documents per departmental policy thoroughly and concisely.					
25. Prepares and delivers clear, concise and accurate shift report.					
27.					
28. Knowledge/Comprehensive Level: Can the student answer all oral review questions					

**Students must pass all critical steps with a score of 2 or 3**

**ORAL REVIEW QUESTIONS  
NON-INVASIVE VENTILATION**

1. Explain the indications for Non-Invasive Ventilation therapy.
2. Explain contraindications for Non-Invasive Ventilation therapy.
3. Explain the clinical data and lab data that should be monitored and assessed prior to beginning Non-Invasive Ventilation therapy.
4. Explain the modes available on the Non-Invasive Ventilation unit.
5. Which controls are active in each mode?
6. Differentiate between the IPAP and EPAP controls.
7. How is PSV determined?
8. Explain the importance of setting the alarms correctly.
9. What is considered an “acceptable leak”?
10. Explain when the EPAP level should be increased.
11. Explain when the IPAP level should be increased.
12. Does the IPAP pressure change when you increase EPAP? What will happen to tidal volume if IPAP is not increased also?
13. Explain how to adjust FiO<sub>2</sub> level.
14. How can you assess the adequacy of the supplemental oxygen therapy being provided?
15. Identify the exhalation port on the device.
16. What flowrate is required to trigger on a breath?
17. What signs would indicate that the mask was putting too much pressure on the patient’s face?
18. How would you alleviate the above problem?
19. Does the “Vt” display give a constant number? Why or why not?
20. When and how would you wean a patient from NIPPV?
21. What other types of noninvasive devices were used in the pasts? List several.

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**PERFORMANCE EVALUATION #37**  
**840 Ventilator**

NAME: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 INSTRUCTOR: \_\_\_\_\_

	0	1	2	3	NA
1. **Place the patient in A/C-VC.					
2. **Place the patient in CPAP mode.					
3. **Activate Pressure Support Ventilation.					
4. **Activate Tube Compensation Ventilation.					
5. Answer oral review questions.					

**Students must pass all critical steps with a score of 2 or 3**

**ORAL REVIEW QUESTIONS**

1. Explain Tube Compensation.
2. Explain differences between the 7200 and 840 ventilator.

**A/C- VC**

V<sub>t</sub> 700 mL  
 f 15/min  
 Flow Sensitivity 3 LPM  
 FiO<sub>2</sub> .25  
 Set Apnea Parameters  
 Set alarms appropriately

Peak Flowrate 60 L/min  
 Decelerating Flow Pattern  
 PEEP +5 cm H<sub>2</sub>O

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**Spontaneous Breathing**

Patient 75 kg  
 FiO<sub>2</sub> .25  
 PEEP +5 cm H<sub>2</sub>O  
 Pressure sensitivity -2 cm H<sub>2</sub>O  
 Peak Flowrate 60 L/min  
 Select Tube Compensation  
 Set Apnea Parameters  
 Set alarms appropriately

**PERFORMANCE EVALUATION #39**  
**Dräger Evita XL Ventilator**

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

INSTRUCTOR: \_\_\_\_\_

	0	1	2	3	NA
1. **Identify and name the filters on the Dräger Evita XL.					
2. **Explain how each filter is processed.					
3. **Trace the gas flow through the ventilator circuit.					
4. **Identify the following, states its function, and describe how it is removed and processed if appropriate. a. On – off switch b. Exhalation Valve c. Expiratory Flow Sensor					
5. Perform a Operational Verification Procedure.					
6. **Establish A/C-VC ventilation with the following settings: a. AutoFlow: On b. Flow Triggering: On and @ 3 L/min c. Tidal volume: 700 mL d. Respiratory rate: 15 breaths/minute e. Time <sub>inspiratory</sub> : 1.0 sec f. PEEP: 5 cmH <sub>2</sub> O a. FIO <sub>2</sub> : .25 b. Pressure Rise Time: 0.2 seconds c. Set the following alarms appropriately: > High/Low Minute Volume > High Spontaneous Respiratory Rate Alarm > High/Low Inspired Tidal Volume Alarm > High/Low Airway Pressure Alarm d. Apnea Parameters in SIMV, CPAP or APRV.					
6. **Identify the location of the patient data, alarm data and ventilator data on the GUI (screen).					
7. **Demonstrate how to measure the static or plateau pressure during volume ventilation.					
8. **Demonstrate how to measure the amount of Auto-PEEP.					
9. **Turn on and off the 100% oxygen.					
10. Change the graphic display to pressure, flow, or volume.					
11. **Change the ventilator settings to the following: Mode: CPAP/P <sub>supp</sub> PEEP: 5 cm H <sub>2</sub> O PSV: 15 cm H <sub>2</sub> O					
12. With spontaneous breaths being simulated, adjust all alarm parameters as needed.					
13. Answer oral review questions.					

**Students must pass all critical steps with a score of 2 or 3**



## ORAL REVIEW QUESTIONS

1. Given ventilator settings identify the following:
  - a. The control variable.
  - b. The trigger variable.
  - c. The cycle variable.
  - d. The limit variable.
  - e. The baseline variable.
2. Which parameter changes with changes in the patient's compliance and/or Raw?
3. Describe AutoFlow.
4. State why AutoFlow and Flow Triggering should always be active during Volume-oriented Ventilation (CMV).
5. Describe the function of the Inspiratory Hold soft-touch key.
6. Describe the function of the Configuration soft-touch key and state the access code to change ventilatory parameters.