

Resident RT Day Goals and Objectives

As part of the ICU rotation residents will spend a day with our respiratory therapist group for additional airway experience / exposure.

As part of their ICU objectives they have the following global goals:

- *The resident will learn the causes of respiratory failure in the critically ill patient. The resident will be introduced to current therapeutic techniques for respiratory support.*
- *The resident will describe the functional and physiologic basis of mechanical supportive ventilation.*
- *The resident will be able to explain differences between various types of ventilation in current practice including SIMV, APRV, Pressure Support, Pressure Control, and Volume Control.*
- *The resident will understand the role, contraindications and benefits of non-invasive positive pressure ventilation.*
- *The resident will be familiar with the basic principles of chest x-ray interpretation.*
- *The resident will recognize the causes, pathogenesis and treatment of pulmonary edema.*

For their RT day some specific learning objectives are:

Procedures:

- ABG
- Arterial line
- Insertion of nasal trumpet
- Insertion of oral airway
- Mask ventilation
- Preparation for intubation/ Intubation
- BIPAP application / removal
- Bronchoscopy (preparation for etc.)
- Optiflow application / removal

Knowledge:

- Basic respiratory assessment of a patient
- Basic airway assessment of a patient
- Evaluation of patient for oxygen therapy (inpatient)
- Appropriate titration of oxygen therapy
- Familiarity with O2 deliver devices (nasal cannula, Face mask, Oximask, Optiflow) and how they work
- Indications / Contraindications for non-invasive vs. invasive ventilation

Ventilator:

- Practical interpretation of ventilator
- Familiarity with the various ventilation modes (pressure control, volume control)
- Interpretation of ventilator wave forms
- Familiarity with other set parameters (I:E, FiO₂, PEEP, rate)
- Approach to weaning both acutely vented patients and chronically vented patients
- Practical approach to assessing for extubation / extubating a patient.