Positive End Expiratory Pressure (PEEP) (> PL1)

Clinical Indications:

1. Pulmonary edema, poor lung compliance due to respiratory pathology, and/or reactive airway emergency.

Contraindications:

Cardiac arrest, pneumothorax, MAP < 60, and/or isolated acute traumatic head injury.

Preparation for Use:

1. Ensure appropriately sized airway and ventilation equipment was selected.
2. Oxygen cylinder(s) are readily available.
3. Patient is appropriately positioned.

Procedure:

1. Set PEEP to 5 to 10 cm H_20 based on patient history and severity of presenting signs of respiratory arrest or failure.
2. Increase PEEP by 5 cm H_20 every 3-5 minutes if needed to achieve targeted SpO_2 and $EtCO_2$ readings as well as lung sounds and patient condition.
    a. Adults and children, do not exceed 20 cm H_20 without OLMC approval.
    b. Pre and full term newborns as well as some neonates may specifically require PEEP > 20 cm H_20, call OLMC for approval.
3. Consider administering medications as indicated for reactive airway or pulmonary edema concurrent with positive pressure ventilation per COGs or OLMC.

Pearls:

Following the application of PEEP:

1. If patient becomes hypotensive with a MAP < 60, then consider decreasing PEEP or removing the device and reassess patient condition and care plan.
2. If the patient has increased difficulty breathing, worsening respiratory failure, or increased resistance, then assess for a pneumothorax and adjust care plan.