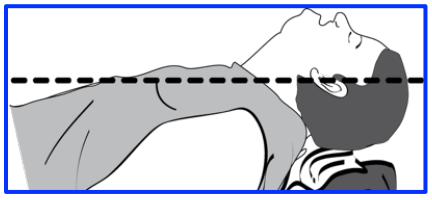
Bag Valve Mask (BVM) (> PL1)

Clinical Indications:
Patients in respiratory arrest or failure requiring oxygenation with volume and/or rate control.

Contraindications:
None

Preparation for Use:
1. Don appropriate PPE to include eye and respiratory protection.
2. Select appropriately sized bag and mask then inspect and prepare BVM for use:
    a. Infant, > 7 kgs (15 lbs), maximum tidal volume of 200 mL
    b. Child, < 7 to < 30 kgs (15-66 lbs), maximum tidal volume of 500 mL
    c. Adult, > 30 kgs (66 lbs), maximum tidal volume of 750 mL
3. Connect to oxygen at a minimum of 10 LPM and ensure the reservoir bag is filling.
4. Make readily available and operational airway suctioning and basic airway adjuncts.
5. SpO_2 and $EtCO_2$ monitoring as credentialed and available.



Procedure:
1. Appropriately open the airway and suction if needed to clear fluids and obstructions.
2. Position and pad the patient to achieve a sniffing position or ear to sternal notch position.
    a. Consider inserting an appropriately sized OPA or NPA.
3. Obtain a proper mask-to-face seal by lifting the patient's head and face into the mask.
    a. Utilize the two person BVM technique as soon as providers are available to do so.
4. Begin ventilating the patient based on their age group by gently depressing the BVM for 1-2 seconds then releasing it. **Initial rate**:
    a. *With a pulse*:
        i. Neonates, 1 ventilation every 1-1.5 seconds for a total of 40-60 BPM
        ii. Infants & Children, 1 ventilation every 3-5 seconds for a total of 12-20 BPM
        iii. Adult, 1 ventilation every 5-6 seconds for a total of 10-12 BPM
    b. With iGel or ET in place:
        i. Neonates, 1 ventilation every 1-1.5 seconds for a total of 40-60 BPM
        ii. Infants & Children, 1 ventilation every 6 seconds for a total of 10 BPM
        iii. Adult, 1 ventilation every 6 seconds for a total of 10 BPM
5. Attach SpO_2 and $EtCO_2$ monitoring device(s), if not already done, and assign crew member for constant monitoring.
6. Consider the application of PEEP, per Clinical Procedure - PEEP
7. **Titrate** oxygen LPM, ventilation rate, and PEEP if applied based on patient condition and target SpO_2 and $EtCO_2$ readings:
    a. Target SpO_2 94-99%
    b. Target $EtCO_2$ 35-45 mm Hg, unless suspected head injury then 30-35 mm Hg.
8. Monitor for signs of successful ventilation, patient's condition, lung sounds, and rate/forcefulness of BVM ventilations.
9. Watch for gastric distention, which if present then consider: repositioning the airway, slowing the rate of ventilations, and/or decreasing the force including PEEP used to ventilate the patient.
    a. Monitor the BVM manometer to maintain an airway pressure less than 20 cm H_2O when ventilating the patient, unless there is a clinical need to exceed 20 cm H_2O.
10. Do not override the pressure relief or pop-off valve unless there is a significant clinical need.
    a. These valves mitigate the risk of over inflation and are set to relieve pressures > 45 cm H_2O in the child and infant sized BVMs and > 60 cm H_2O in the adult BMV.