

it if seen.

- Position the airway and attempt to ventilate; if unable to ventilate, continue chest compressions.
  - Repeat cycles of chest compressions and ventilations at 30:2 ratio until either ventilation is successful or advanced life support measures become available.
4. Airway Obstruction if Adult Patient Found Unresponsive
- If an adult patient is found unresponsive and with no breathing or no normal breathing (only gasping), then CPR shall be started immediately.
  - If the patient is unable to be ventilated with the BVM or supraglottic airway, then airway obstruction should be considered.
  - Chest compressions should be continued, and each time the airway is opened in CPR, look for an object in the patient's mouth and remove it if seen.
  - Position the airway and attempt to ventilate; if unable to ventilate, continue chest compressions.
  - Repeat cycles of chest compressions and ventilations at 30:2 ratio until either ventilation is successful or advanced life support measures become available.
5. Airway Obstruction in Unresponsive Adult Patient by Advanced Life Support
- Perform a progressive laryngoscopy until foreign body is visualized.
  - Insert closed Magill forceps into oral cavity, open forceps, grasp foreign body and remove.

#### H. Airway Foreign Body Removal (Child/Infant) [BLS/ALS]

##### 1. Partial Airway Obstruction

- If the patient can cough, speak or breathe – allow the patient to attempt to clear the obstruction by forceful coughing.
- If the patient demonstrates a weak, ineffective cough, high pitch noise while inhaling, extreme respiratory difficulty, and/or cyanosis; treat the patient as having a complete airway obstruction.

##### 2. Complete Airway Obstruction

-Child : Use abdominal thrust maneuver with standing child patient.

- Stand behind the victim with your arms wrapped around the patient's waist.
- Place the thumb side of your fist against the patient's abdomen, in the midline slightly above the navel and well below the xiphoid process.
- Grasp the fist with the other hand and press the fist into the patient's abdomen with a quick inward and upward thrust.
- Repeat the thrusts until the object is expelled or the patient becomes unresponsive.

-Infant / Neonate : Use a combination of back blows and chest thrusts in an infant or neonatal patient.

- Deliver five back blows between the infant's shoulder blades with the heel of the hand while the infant is supported in the prone position straddling the rescuer's forearm, with the head lower than the trunk.
- After delivering the back blows, place your free hand on the infant's back, holding the infant's head. Turn the infant over while the head and neck are carefully supported, and hold the infant in the supine position draped on the thigh. The infant's head should remain lower than the trunk.
- Give five quick downward chest thrusts in the same manner and location as chest compressions.

##### 3. Complete Airway Obstruction in a Pediatric Patient Who Becomes Unresponsive

- Carefully support the patient to the ground.
- Without a pulse check, immediately begin chest compressions followed by ventilations at a

15:2 ratio.

- Each time the airway is opened in CPR, look for an object in the patient's mouth and remove it if seen.
  - Position the airway and attempt to ventilate; if unable to ventilate, continue chest compressions.
  - Repeat cycles of chest compressions and ventilations at 15:2 ratio until either ventilation is successful or advanced life support measures become available.
4. Airway Obstruction if Pediatric Patient Found Unresponsive
- If a pediatric patient is found unresponsive and with no breathing or no normal breathing (only gasping), then CPR shall be started immediately.
  - If the patient is unable to be ventilated with the BVM or supraglottic airway, then airway obstruction should be considered.
  - Chest compressions should be continued, and each time the airway is opened in CPR, look for an object in the patient's mouth and remove it if seen.
  - Position the airway and attempt to ventilate; if unable to ventilate, continue chest compressions.
  - Repeat cycles of chest compressions and ventilations at 15:2 ratio until either ventilation is successful or advanced life support measures become available.
5. Airway Obstruction in Unresponsive Pediatric Patient by Advanced Life Support
- Perform a progressive laryngoscopy until foreign body is visualized.
  - Insert closed Magill forceps into oral cavity, open forceps, grasp foreign body and remove.

#### I. CPAP - Continuous Positive Airway Pressure [ALS]

CPAP is a method of patient ventilation which provides a noninvasive continuous positive-pressure ventilation to prevent alveolar collapse. It decreases the work of breathing, enhances oxygen and carbon dioxide exchange and increases cardiac output.

##### 1. Indications

Mask CPAP ventilation is indicated for the treatment of impending ventilatory failure in an attempt to avoid intubation and standard mechanical ventilation. This non-invasive pressure support system seems best applied to patients whose respiratory failure is expected to quickly respond to medical therapy, as continuous mask CPAP or ventilation requires close attention. The patient shall meet all of the following criteria:

- a. Dyspnea with pulmonary edema or wheezes, or near drowning or submersion with possible aspiration
- b. An awake patient, adult or pediatric, who is able to follow commands
- c. The ability to maintain an open and protected airway and handle secretions
- d. Two or more of the following signs:
  - Respiratory rate > 24 / min.
  - Pulse Oximetry of < 94% at any time
  - Use of accessory respiratory muscles

##### 2. Contraindications

- a. Decreased level of consciousness / Unconsciousness
- b. Unable to maintain a patent airway
- c. Pneumothorax (unilateral absence of breath sounds)
- d. Hypotension (SBP < 90 mmHg)
- e. Recent surgery to face or mouth, epistaxis, or other impediment to proper mask placement or fitting
- f. Pediatric patient who is too small for the CPAP mask to fit appropriately

##### 3. Usage