PURPOSE:
To provide manual ventilation to a patient unable to ventilate independently.

CONSIDERATIONS:
1. Manual ventilation with a hand-held resuscitation bag provides the delivery of oxygen or room air to the lungs of a patient who is unable to ventilate independently. The use of manual ventilation can be employed in a respiratory emergency during temporary disconnection from a mechanical ventilator or prior to suctioning to prevent hypoxia.
2. When using a hand-held resuscitator, observe for vomiting as gastric distention may be caused by forcing air into the patient's stomach.
3. For patients whose conditions are likely to require the use of a hand-held resuscitator, the resuscitator should be kept at the patient's side, visible at all times, and fully assembled with appropriate sized adult or pediatric mask.
4. The mask should not be secured in place over the face or tracheostomy tube with straps, as quick removal may be necessary to prevent aspiration of vomitus or secretions.
5. Resuscitator will supply room air (21% oxygen) if used independently of oxygen.

EQUIPMENT:
Resuscitator bag – BVM (Bag-Valve-Mask)
Cuffed, face mask
Oxygen source, if appropriate
Oxygen tubing
Nipple adaptor attached to oxygen flow meter
Gloves
Suction machine – if available

PROCEDURE:
1. Adhere to Standard Precautions.
2. If using in an emergency situation marked by cessation of breathing, establish patient unresponsiveness and call for help (dial 911).
3. If resuscitator is to be used with oxygen, connect the resuscitation bag to the oxygen by attaching one end of the oxygen tubing to the bottom of the bag and the other end to the nipple adaptor of the flow meter of the oxygen tank.
4. Prior to use of the manual resuscitation bag, check the patient's airway for obstruction. The presence of foreign matter or secretions can occlude the patient's airway and impair resuscitation efforts. If the patient has a tracheostomy tube in place, suction to remove any secretions that may block the airway.
5. Using your non-dominant hand, place the mask over the face so that the apex of the triangular mask covers the bridge of the nose and the base lies between the lower lip and chin. If the patient has a tracheostomy tube in place, the resuscitation bag may be attached directly to the tube.
6. Use the E-C clamp technique to hold the mask in place while you lift the jaw and hold the airway open.
   a. Perform a head tilt
   b. Use the thumb and index finger of non-dominant hand to make a "C", pressing the edges of the mask to the face.
   c. Use the remaining fingers to lift the angles of the jaw (3 fingers form an "E") and open the airway.
7. Use your dominant hand to ventilate the patient by compressing the bag allowing ample time between inspirations for patient's passive exhalation and bag re-expansion. Compress bag every 5 to 6 seconds to deliver approximately 1 liter of air. Give each breath more than 1 second.
   [Note: Face mask may also be used without ventilation bag to ventilate patient. (Example: In a situation in which the rescuer is performing CPR on a victim with a communicable disease that would pose a threat to the rescuer)]
   a. Hold mask over mouth and nose as described previously.
   b. Hyperextend head to open airway – if you suspect head or spinal injury, lift the jaw but do not tilt head back.
   c. Blow air through mask port.
   d. Remove your mouth to allow passive exhalation by patient.
   e. Ventilate 10 to 12 times per minute.
8. Observe the patient's chest to ensure that air is inspired and exhaled with each compression. Observe color.
9. If providing emergency assistance, continue resuscitative measures until help arrives.

AFTER CARE:
1. Document in patient's record:
   a. Incident and duration of ventilation.
   b. Treatment provided.
   d. Identity and location of emergency facility, if indicated.
   e. Condition of patient at time of transportation, if indicated.