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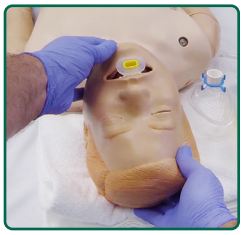
BAG MASK VENTILATION

Bag Mask Ventilation



❶ Preparing for the procedure

a. Wear gloves and protective eyewear.

b. Remove any airway obstruction due to fluid or foreign body.

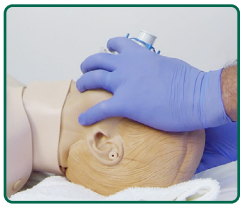
c. Open the airway using head tilt and chin support (consider omitting head tilt where cervical spine injury is suspected).

d. Insert a correctly sized oropharyngeal or nasopharyngeal airway.

❷ Performing the procedure

a. Select the correct size of mask and grasp the body of the mask between the thumbs of both hands to spread the cuff with the fingers.

b. Apply the mask starting with the top of the mask on the bridge of the nose. Bring the mask down over the face and release the cuff when in contact with the skin. This pulls the soft tissues of the face into the mask and enhances the seal.



c. Use the non-dominant hand to place the index finger and thumb around the inlet port of the mask. The fingers on this hand are placed on the patient's jaw, avoiding the soft tissue of the neck. The small finger is placed posterior to the angle of the jaw to provide jaw thrust if needed. The patient's face is lifted into the mask.

d. Attach the bag and ventilate at approximately 10 ventilations per minute. Each ventilation is delivered over 1 second. The volume required is approximately 7 ml per kilogram of bodyweight.

e. Watch for evidence of chest rise and ask an assistant to auscultate the chest to ensure adequate air entry.

f. Add oxygen to the bag if required.

❸ Complications

a. Bag-mask ventilation can produce gastric inflation associated with regurgitation and aspiration.

b. It may be difficult to maintain a mask seal using one operator. If additional personnel are available, use one person to seal the mask using two hands.

c. Positive pressure ventilation can cause barotrauma. Observe for signs of pneumothorax.

Note: Check the most recent resuscitation guidelines at www.resus.org.au

References

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Support for this project has been provided by the Australian Government Office for Learning and Teaching.

Background

Bag-mask ventilation (BMV) is a vital skill for all health practitioners with responsibility for resuscitation. BMV refers to the use of a self-inflating bag and resuscitation mask to deliver positive pressure ventilation to an apnoeic or hypoventilating patient.

The device includes a one-way valve and reservoir bag, that when connected to oxygen enables higher fractions of inspired oxygen. The BMV is usually disposable, and is available in sizes to suit neonates, children and adults. Operators must be familiar with the technical specifications of each device to ensure that appropriate tidal volumes are delivered to the patient based on estimated body weight.

One of the limitations of the device is the inability to measure tidal volumes accurately. The device may also be difficult to use by a single operator, due to problems with obtaining and maintaining a good mask seal with only one hand. Wherever possible a two person technique is recommended, with one operator responsible for the mask seal and head tilt using both hands to seal the mask and to support/lift the jaw. The other operator is then responsible for delivering the ventilation.

Equipment required

- Gloves and safety glasses
- Full range of airway sizes for adult and paediatric patients
- Suction equipment
- Resuscitation mask appropriate to patient size
- Self-inflating bag-valve device appropriate to patient size

Please visit the website for more videos and additional information.

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