

Frequently asked questions (FAQS): Resuscitation bag

Q1. What is the ideal capacity of a resuscitation bag for newborn?

Ideal capacity of a bag for a neonate is 240-750 ml. For a baby <1500g use a bag of 240ml – 350ml capacity.

Q2. Can I use resuscitation bag for providing free flow of oxygen if oxygen is connected to oxygen inlet?

Not all types of bags can be used for providing free flow of oxygen. Only bags with closed end reservoir or anesthesia bag may be used for this purpose.

Q3. How does self inflating bag score over anesthesia bag?

Self inflating bag is ready to use in emergency, if there is no supply of oxygen or pressurized gas. The concentration of oxygen can be varied with or without reservoir from 45-60% to 90-95%. On the other hand, anesthesia bag always requires pressurized source of air or oxygen. If connected to oxygen it can deliver only 100% oxygen.

Q4. What are the indications and contraindications of bag & mask ventilation at birth?

Indications

- (a) Baby apneic or gasping after initial steps of resuscitation.
- (b) Heart rate <100/minute

Contraindications

- a) Meconium stained baby depressed at birth
- b) Congenital diaphragmatic hernia

Q5. How can I judge for myself the amount of pressure I am able to generate with my hand?

You may train your hands and finger by simple test. Attach a long intravenous tube to patient outlet with a endotracheal tube connector. Let the tube dip to 15 cm under water level. Your fingers will have to generate pressure more than 15 cm, so as to cause air bubbles to be generated under the water column. Now let tube end sink to 20 cm below water level, you will have to generate more than 20 cm of water pressure. Similarly one can judge for pressures of 25 cm, 30cm, 35 cm of H₂O, etc.

One can attach a manometer to patient outlet and read directly on a dial (1mm of Hg= 1.3cm of H₂O). Or if bag has a facility of pop off safety valve, one will have

to exceed pressure of pop-off limit say 30cm of H₂O when the hissing sound appears.

Q6. In an open ended reservoir why is the tube corrugated?

Open ended reservoir is provided with corrugations for increasing the volume of reservoir and when oxygen gets consumed from reservoir, it is drawn inside the bag in a laminar fashion.

Q7. What are ideal specifications of resuscitation bag?

The following are the ideal specifications of a resuscitation bag:

- (a) Capacity of bag (ideal 240-750ml)
- (b) Provision for attaching reservoir
- (c) Safety device is present
- (d) Patient outlet is of standard size; endotracheal tube connectors and standard masks fit well into it
- (e) Easy to clean and disinfect
- (f) Withstands repeated autoclaving and boiling

Q8. What is the function of valve adapter connected between air inlet and the closed-ended reservoir?

The valve adapter has the following functions:-

- (a) It regulates the pressure generated inside the bag. Once the reservoir is filled with oxygen the valve at air inlet and inspiratory valve at air outlet opens, so that continuous flow of oxygen is achieved. It results in PEEP of 2-3 cm of H₂O.
- (b) In case reservoir is completely full of oxygen, excess oxygen leaks from valve adapter to atmosphere.
- (c) In situations when there is no oxygen in the reservoir, while bag re-inflates air is drawn in through the openings on valve adapter, thus delivering at least room air for resuscitation.

Q9. How often should one disinfect/sterilize bag and mask equipment?

This depends on number of babies needing bag and mask ventilation. Ensure that if it is used for a baby born following frank chorio-amnionitis, the equipment needs sterilization before being used on next baby. In a busy hospital catering for 2000 births per annum, it may be a good idea to sterilize bag and mask every 15 days. But disinfection must be followed on daily basis. The mask must be disinfected after each single use.