

Module 14 : Birth Asphyxia : Diagnosis and Management with bag and mask

Session 3 : Managing asphyxia - Step 2 : Using bag and mask

Day : 1 and 2

Time Required : 4 hours 30 minutes

Purpose

To enable ASHAs to resuscitate a baby with asphyxia by using a bag and mask.

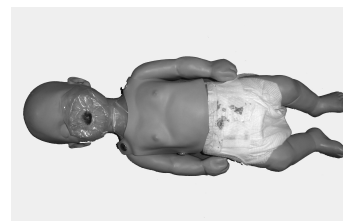
Objectives

At the end of the session the ASHA will be able to:

1. Explain what to do if the baby is still not breathing even after using the mucus extractor.
2. Demonstrate how to use the bag and mask correctly.
3. Explain how long resuscitation should take place.
4. Explain how to care for the bag and mask.
5. Demonstrate complete drill of Asphyxia management.

Materials

- Doll (a resuscitation mannequin)
- Mucus extractor
- Bag and mask
- Reading Material 1 : Skills Checklist : Using Bag and Mask
- Reading Material 2 : Asphyxia Action Tree



Resuscitation mannequin

Preparation

- Obtain and have ready the materials listed above.
- Ask ASHAs to refer to the skills checklist for using bag and mask, provided in reading material.
- Doll - (a resuscitation mannequin) one for each small group
- Bag and mask - one for each small group.

Training Methods

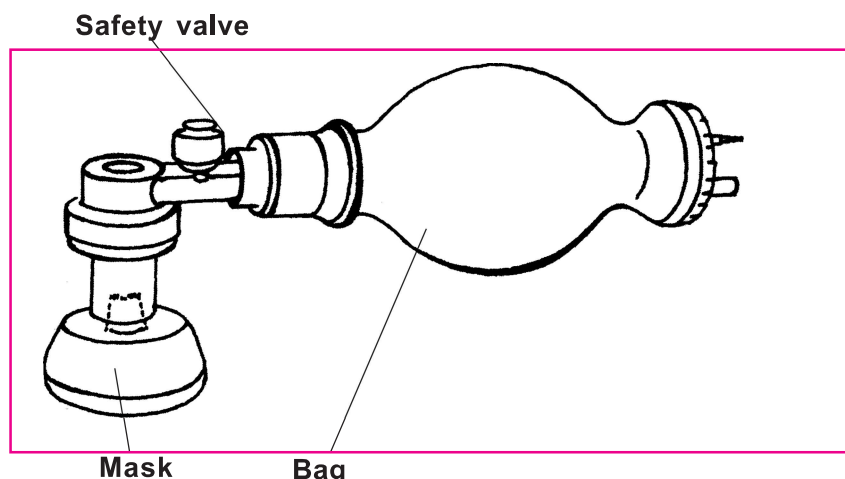
Presentation and Discussion (1 hour)

Instructions to Trainers :

1. Ask ASHAs to review the measures to be taken if the infant is born without crying or breathing or with a weak or gasping breath. (*Refer to Decision Tree: Start with drying the baby; if he is not responding, use the mucus extractor. If no or weak response, **use the bag and mask immediately.***) These measures are called resuscitation.
2. Explain that if they decide that the bag and mask is needed, they should move the baby to the mother's side. If the cord is too short, ask the TBA to quickly cut the cord.
3. Ask ASHAs what they think is the meaning of 'ventilation'. Listen to their answers. Praise them if they are correct. Fill in any gaps. (*Ventilation means moving air into the baby's lungs so that the baby gets enough air to maintain heart and brain function and life itself.*)

4. Explain that the baby needs ventilation very quickly; they should dry the newborn immediately and if it is not crying or breathing, use the mucus extractor. If it is still not responding, start ventilation with bag and mask before 60 seconds from birth.
5. Show the bag and mask and point out the main parts: mask, bag and safety valve.
6. Show how the mask attaches to the bag and identify the safety valve.
7. Explain that the soft mask goes over the baby's mouth and nose and is held firmly to make an airtight seal. The ASHA needs to squeeze the bag. Each squeeze is a 'breath' and air is pushed into the baby's lungs.
8. Explain that with every squeeze of the bag, the baby's chest should rise, as happens while breathing. If the bag is squeezed correctly, the right amount of air goes into the baby. If the baby's chest is not rising, try repositioning the baby's head and replacing the mask to make an airtight seal.

Illustration of Bag and Mask

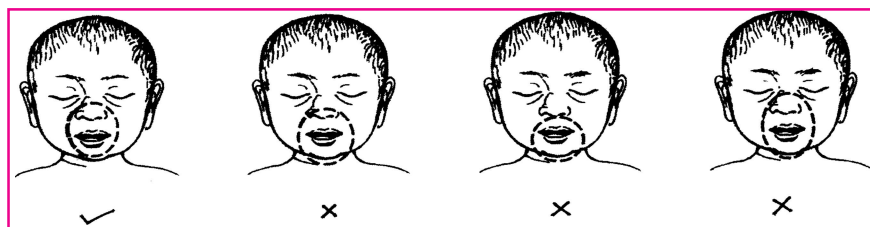


Using bag and mask

9. Explain that if the bag and mask are working properly the baby's exhaled air will escape out of the safety valve, so the baby will not breathe the same air again.
10. Explain that the bag and mask is to be cleaned in warm water with soap after each use, dried and replaced in its case.
11. Explain that prior to the delivery, the mask should be already assembled and ready to use.

Demonstration (30 minutes)

1. Demonstrate use of the bag and mask on the doll.
2. Ask ASHAs to refer to the Skills Checklist : Using Bag and Mask, provided in the Reading Material.
3. Read each step out aloud as it is performed.
4. Check for any questions. Clarify any problems.



Proper positioning of bag and mask

Skills Checklist: Using Bag and Mask

1.	Place the baby in the proper position, dry and covered, with a folded towel under the baby's shoulders. The baby's head should be slightly extended.				
					
2.	Place mask with bag attached over infant's mouth and nose and try to make an airtight seal.				
3.	Squeeze the bag 40 times per minute.				
4.	Check to see that the baby's chest rises with each ventilation.				
5.	If chest is not rising : - - Reposition the baby's head, and try again. - Reposition mask and check that the seal does not allow air to escape. - Increase ventilation pressure by squeezing bag harder. - If there is too much mucus, suction again. - If chest is still not rising, remove bag from mask, place mask over baby's mouth and nose and blow directly into the mask.				
6.	After ventilating for 1 minute stop and look for spontaneous cry or breathing. If not present continue ventilating.				
7.	Every 2 minutes or 80 breaths, check for a few seconds to see if the baby is responding. If yes, stop. If not, continue.				
8.	After 10 minutes of ventilation if there is no gasping or breathing, stop ventilation.				
9.	When resuscitation is complete wash mask and valve with soap and water, dry, and store in its bag.				

Practice (1 hour 30 minutes)

Instructions to Trainers :

1. Divide ASHAs into groups of three.
2. Have each ASHA practice using the bag and mask while the other two observe her, referring to the checklist.
3. Have each ASHA practice squeezing 40 times per minute, while the other two keep the time.

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4. Move around the room observing and providing necessary help, and assessing ASHAs' acquired level of skill.
 5. When the ASHAs are comfortable about using the bag and mask, have them practice the complete resuscitation drill, starting from breaking of bag of water and observing colour of amniotic fluid, if the fluid is thick, yellow or green clear mouth cavity of baby as soon as head is seen, drying the baby, using the mucus extractor, and then the bag and mask. Time this activity so that the use of bag and mask starts within 60 seconds after birth.
 6. Have each ASHA practice the complete drill.
 7. Trainer circulates in the room and assess their acquired level of skill.

Presentation and Discussion : How long to ventilate? Who should be ventilated? (1 hour)

Instructions to Trainers :

1. Explain that if the baby starts to cry and breathes vigorously on its own at any time, ventilation should stop, and supportive care (keeping the baby warm and close to the mother, and initiation of breastfeeding) should continue.
2. Explain that if the baby is a macerated stillbirth (dead in uterus for some time), the ASHA need not start resuscitation.
3. Explain that if the baby does not respond, or breathes very weakly, the ASHA should continue to ventilate. Check every 2 minutes (or after 80 breaths) for a few seconds to see if there is a response. Since the time of birth is written down, and resuscitation started within a minute of delivery, the time to stop will be about 11 minutes after the birth time.
4. Explain that if there is gasping after 10 minutes, continue ventilation for 5 more minutes. After 15 minutes, if there is no spontaneous breathing (even if there is gasping), stop ventilation.
5. Explain that if there was never a cry or breath (after 10 minutes of ventilation), the baby is a stillbirth and cannot be revived.
6. Explain that if there was gasping or breathing at some point after delivery, but after ventilation there is no breathing at 10 minutes (or 15 minutes if there was gasping at 10 minutes), the baby is dead but considered live born.
7. Explain that in either case—the stillbirth or the live birth who could not be revived - explain this to the TBA, mother and family. Don't blame. Don't feel guilty. The mother, the TBA and you have done your best. Some things are beyond our control. Revisit the mother for counseling and postpartum visits.
8. Ask ASHAs if they think every baby, even a very preterm baby of 28 weeks or less, should be resuscitated. Listen to their answers. Explain that this is a very difficult question. What should ASHAs do? If babies below 28 weeks are born, they will probably not live even with resuscitation as they are too preterm. Babies with very severe malformations will probably not survive either, even with resuscitation. ASHAs should explain this to parents.

Summary (20 minutes)

- Ask ASHAs to explain what to do if a baby has asphyxia.
- Have a ASHA demonstrate the sequence of events, from observing colour of amniotic fluid, clearing mouth cavity of baby as soon as head is seen if amniotic fluid is thick, yellow or green, drying, use of the mucus extractor, use of bag and mask, while the rest of the group observes using the checklists.

- Discuss and clarify any confusion.
- Ask how to care for the bag and mask.
- Make corrections if any and add missing information.
- Praise ASHAs for their good work.

Evaluation of the session (10 minutes)

Objectives	Assessment Method	Output
Explain what to do if the baby is still not breathing after using the mucus extractor.	Questions and answers Demonstration.	Trainer's observation of the demonstration by ASHAs, using skills checklist
Demonstrate how to use the bag and mask correctly.	Each trainee demonstrates correctly how to use the bag and mask, using the checklist.	Trainer's observation of the demonstration by ASHAs, using skills checklist
Explain how long resuscitation should take place.	Questions and answers	--
Explain how to care for the bag and mask.	Questions and answers	--
Demonstrate complete drill of asphyxia management		Trainer's observation of the demonstration by ASHAs, using skills checklist