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FACULTY OF NURSING



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INTRODUCTION-

The adaptation from intrauterine to extra uterine life involves a complex and rapid interpretation of physiologic changes. Within minutes of life. Approximately 10% of newborns require some assistance to begin breathing at birth. <1% requires extensive resuscitation measures. According to the National Resuscitation Program, those newborns that do not require resuscitation can generally be identified by a rapid assessment of following 3 characteristics----

- Term gestation?
- Crying or breathing?
- Good muscles tone?

TABC OF RESUSCITATION-

- **T- Maintenance of temperature**
- A- Establish an open airway
- **B** Initiate the breathing
- **C** Circulation

DEFINITION-

Neonatal Resuscitation is intervention after a baby is born to help it breathe and to help its heart beat. Before a baby is born, the placenta provides oxygen and nutrition to the blood and removes carbon dioxide. Resuscitation is helping with Airway, Breathing, and Circulation, also known as the ABCs.

Indication-

- Preterm delivery
- Delivery other than normal
- Malpresentation
- Multiple pregnancy
- Fetal distress
- Meconium staining
- Severe IUGR
- Ante partum hemorrhage

Contraindication-

- Diaphragmatic hernia
- Non-vigorous baby born through meconium stained liquor

Articles-

- Mechanical suction
- Suction catheters (12 and 14 fr)
- Feeding tubes (6 fr & 8 fr) and 20 ml syringe
- Neonatal self inflating resuscitation bags
- Face masks (term & preterm size)
- Oxygen with flow meter and tubing Intubation equipment-
- Laryngoscope with straight blade
- Endotracheal tubes
 Resuscitation drugs and fluids-
- Inj. Epinephrine
- Inj. Naloxone
- Normal saline

WARMTH-

- **□**Avoid hypothermia.
- **□**Delivery in a warm and draft free area.
- ☐ Baby received with a pre warmed towel.
- □ Rapidly dry head and skin.
- □ Discard wet linen.
- □Place on firm surface under radiant warmer/ on mothers body.

CHEST COMPRESSION TECHNIQUES

Methods

thumb technique: 2 thumbs depress the sternum, hands encircle the torso and the fingers support the spine. **Preferred** technique



2 - Finger technique: Tips of middle & index/ring finger of one hand compresses sternum, other hand supports the back.



Procedure-

- Preliminary preparation-
 - 1. Check if the baby is Term
 - 2. Look for muscle tone
 - 3. Check if the baby is crying or breathing
- 4. Wash hands and wear gloves
- Initial Resuscitation steps-
- 5. Provide warmth to the baby.
- 6. Clear airway if necessary
- 7. Dry and stimulate the newborn
- 8. Assess breathing/crying
- 9. Assess the heart rate

- 10. Indicates need for and initiates positive pressure ventilation (Gasping, apnoeic or HR <100)
- 11. Position the baby's head in a slightly extended position to open the airway.
- 12. Place the mask on the baby's face so that it covers the chin, mouth and nose. Form a seal between the mask and face and begin ventilation
- 13. Ensure that the chest is rising with each ventilation
- 14. Ventilate at a rate of 40 breaths/minute for 30 seconds
- 15. Checks for rising heart rate after 15 seconds after PPV
- 16. Takes corrective steps when heart rate not rising and chest not moving (MRSOPA-mask readjustment, repositioning, suctioning, open mouth, pressure increase, alternative airway)
- 17. Assess breathing, and every 30-60 seconds (if HR < 60 per minute)
- 18. Assess heart rate (if HR < 60 per minute)
- 19. Assess saturation /colour
- 20. Demonstrates correct chest compression (Two thumb or two finger method with 3:1) techniques with PPV for 60 seconds

- 21. Assess heart rate (if HR < 60 per minute)
- 22. Administers emergency drugs and continues with chest compression and PPV for 30 seconds

Post Resuscitation Care-

- 23. Maintains normothermia 36.5° 37.5°C
- 24. Continuous observe the child for at least 48-72 hours.
- 25. Check the color of skin and assess the respiration
- 26. Start IV infusion.
- 27. Check the head and jaw position because tongue may fall back & can obstruct the airway.
- 28. Discard the all articles & materials.
- 29. Do proper record & reporting.

NURSING RESPONSIBILITY-

- Duties of a neonatal nurse usually include supplying vital nutrients to newborns, changing feeding tubes, administering medication, observing vital signs, performing intubations and using monitoring devices.
- Nurse should keep warm the baby.
- Nurse should take Heart Rate for 1 full minute.
- Nurse should be listening for murmuring of the baby.
- Nurse should assess the cyanosis.
- Nurse should be observing for CP distress.

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