Nursing Midwife

Homework Help – Sample

ASSIGNMNET – MIDWIFE

What is the next step in resuscitation?

The two main aspects which warrant neonatal resuscitation by trained personnel are perinatal asphyxia and prematurity. This new born falls under the category of prematurity, in addition to be given birth by a pre ecclamptic mother .A preterm newborn is at risk for respiratory distress syndrome (RDS) due toinadequate amount of surfactant in the lung alveoli. A floppy newborn which is blue with no respiratory effort indicates poor adaptation by the lungs, to act as a site for gas exchange resulting in severe hypoxia.Clearing of lung fluid to achieve normal functional residual capacity is decreased in a premature newborn demonstrating decreased amount of surfcactant.This newborn with no respiratory effort and delivered via 'C', section definitely needs respiratory assistance.

Newborns who do not meet the normal assessmnet criterias such as good respiratory effort and musce tone with body in pink color, should be identified as a client for resuscitation. This may include maintaining a patent airway via suctioning , keeping the newborn warm , stimulation and repositioning of the newborn.The midwife also should assess the need for initiation of ventilatory support , provision of chest compressions , and the use of appropriate medications.

While preparing to resuscitate the newborn after identifying the immediate needs, the midwife should aim to accomplish certain goals such as to maintain ventilaion, oxygenation, body

temperature, cardica output, tissue perfusion and blood glucose levels .The midwife is responsible to formulate a careplan based on the priorities identified in the newborn.

The question clearly states that the airway of the newborn has been cleared. This is accomplished after the newborn is placed in a warmer, as stated. Proper drying with suctioning is often indicated as a good stimulus to initiate breathing in a newborn. If necessary, the midwife can slap soles of the feet or rub the back to provide vigorous stimulation. If this stimulation does not iinitiate breathing the newborn may be experiencing secondary apnea, which mandates positinve pressure ventialtion (PPV) . Even if the newborn is cyanotic, with heart rate below 100, supplemental oxygen can be administered if a good respiratory effort is observed. However ,in this case the newborn lacks good respiratory effort , heart rate below 100 beats per minute (BPM) and cyanotic which demands the necessity of PPV. PPV can be provided through an appropriate bag which delivers positive –end –expiratory –pressure (PEEP), with an appropriate mask.The appropriate bags are a low- inflating or a self inflating bag , and a 'T 'piece which is pressure limited. Initially, the oxygen concentration for a premature newborn on PPV should be between 100% and room air .If the infant does not demonstarte any improvement with this and has a sustained heart rate below 100 BPM sould be shifted to FiO2 of 1 and theappropriat position of the mask should be checked.

After evaluating the effectiveness of bag –mask ventilation, the midwife should assess the necessity of intubation using a '0' size blade designed for premature infants.The position of the endotrachealtube after intubation should be confirmed with chest x-ray. Further to intubation, adequate ventilation with a heart rate above 100 BPM should be established.If this is not

accomplished , the midwife should carefully assess for the need of chest compressions. However, chest compression shpould be initiated only in the heart rate falls below 60 BPM .

Further to this, the midwife should adminsiter resuscitating drugs such as epinephrine (1 : 10,000 at 0.01-0.03 mg/kg) and isotonic sodium chloride solution (0.9%) which expands the intra-vascular volume. The midwife should also concentrate on maintaining fluid and electrolyte balance with adequate blood glucose levels during the period of neonatal resuscitation.Natural surfacatant such as Exosurf Neonatal or Survanta, can be administered in severe respiratory distress after the newborn is endotracheally intubated.This leads to improvement in gas exchange, reduces the demand for highlevel of oxygen,assisted ventilation ,barotraumas and increases the lung compliance. The methylxanthines (caffeine, theophylline) can be used to increase respiratory effoert and reduce episodes of apnea in newbonsexperiencing apnea of prematurity. Methylxantines are stimulates cardiac, respiratory, and CNS centres and relaxes smooth muscle. These are also mild diuretics and improve contractality of skeletal muscle and Diaphragm(4)

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