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Nsc 404

**Question 1:**

**Use of partograph in the management of first stage of labour**

The **partograph** is a graphical presentation of the progress of labour, and of fetal and maternal condition during labour. It is the best tool to help you detect whether labour is progressing normally or abnormally, and to warn you as soon as possible if there are signs of fetal distress or if the mother’s vital signs deviate from the normal range.

It helps to avoid complications like:

1. Hypertension
2. Infection`
3. Obstructed labour
4. Unsafe abortion
5. Hemorrhage

Advantages of using partograph

1. A single sheet of paper can provide details of necessary information at a glance
2. No need to repeat record of labour events repeatedly
3. Gives clear picture of normality and abnormality in labour
4. It facilitates handover procedure of staffs
5. Saving working time of staffs against writing labour notes in long hand

Limitations

* It requires a skilled healthcare worker who can fill and interpret the partograph.
* Recent studies have shown there is no evidence that partograph use is detrimental to outcomes.
* Paper-partograph and the equipment required to complete it are often unavailable in low resource settings.
* Despite decades of training and investment, implementation rates and capacity to correctly use the partograph are very low.

Usefulness of partograph

1. It depicts the progress of labor at a glance
2. It is simple to use
3. It provides a practical teaching aid
4. It is an efficient means of exchange of technical information about labor progress between the team of care givers
5. Used to monitor fetal heart rate
6. Used to assess moulding and caput formation
7. Used in assessing the station (descent) of the fetal head by vaginal examination
8. Used to monitor cervical dilatation
9. To monitor the development of cervical oedema
10. Position of the fetus
11. Monitors uterine contractions
12. Used to know the state of membranes and color of liquor: "I" designates intact membranes, "C" designates clear and "M" designates meconium stained liquor.
13. Monitor oxytocin administration
14. To monitor the vital signs of the mother especially the blood pressure

**Question 2: Management of Second Stage of labor**

***Its beginning is identified by:***

* The patient feels the desire to defecate.
* The contractions become more prolonged and painful.
* Reflex desire to bear down during the contractions.
* The expulsive effort is accompanied by sustained expiratory grunt.
* Rupture of membranes, although this is not specific as it may occur earlier even before start of labor “prelabour rupture of membranes" or later even to the degree that the fetus is delivered in an intact sac.
* Full dilatation of the cervix (10 cm) in between uterine contractions is the most sure sign.

The management of second stage of labor includes

1. Preparation
2. Observation
3. Conduct of delivery

**PREPARATION**

1. Maternal position

With the exception of avoiding supine position, the mother may assume any comfortable position for bearing down.

Semi –recumbent or supported sitting position, with thighs abducted.

1. Perineal cleansing

When delivery is imminent skin over the lower abdomen, vulva, anus and upper thigh is cleansed with antiseptic solution and draped

1. Empty bladder
2. Light diet is given
3. Pain relief options must be discussed with the woman prior to the onset of labor and offered according to her wishes and using health facility protocols and norms. The need for pain relief is highly variable between individuals and should be individually assessed. While psychosocial interventions such as having a birth companion and provision of supportive care may reduce the need for analgesia, there is excellent evidence from the pain literature that while pain behavior is culturally determined, for example whether crying out in pain is acceptable or not, experience of pain intensity and associated suffering are not culturally determined. Thus, care providers should not base assumptions of “coping” on visible pain behavior. Usually the second stage is relatively short and self‐limiting. Local anesthesia should be used for perineal infiltration prior to cutting an episiotomy, and the practice of cutting an incision without anesthesia is to be deprecated. For instrumental delivery, a pudenda block may be indicated, especially for forceps delivery.

**Observation**

1. Maternal conditions

Emotional condition

Pulse quarter hourly

Bloods pressure only

1. Fetal condition

FHR: either continuously or after each contraction

Liquor: meconium staining

1. Uterine contractions

Strength

Duration

Frequency, assessed continuously

1. The progress of decent every 30 minute

Conducting the delivery

1. Control the delivery of the head to prevent laceration
2. Episiotomy if required
3. Ritgen”s method
4. Clear the airway after delivery of the head

***Bearing down***

Ask the patient to bear down during contractions and relax in between.

 ***Delivery of the head***

The main aim during delivery of the head is to prevent perineal lacerations through the following instructions:

* Support of the perineum:

When the labia start to separate by the head, a sterile pad is placed over the perineum and press on it with the right hand during uterine contractions. This is continued until crowning occurs to maintain flexion of the head.

* Crowning:

Is the permanent distension of the vulval ring by the foetal head like a crown on the head. The head does not recede back in between uterine contractions.

This means that the biparietal diameter is just passed the vulval ring and the occipital prominence escapes under the symphysis pubis.

After crowning, allow slow extension of the head so the vulva is distended by the suboccipito frontal diameter 10 cm.

If the head is allowed to extend before crowning the vulva will be distended by the occipito-frontal 11.5 cm increasing the incidence of perineal lacerations.

Ritgen manoeuvre: upward pressure on the perineum by the right hand and downward pressure on the occiput by the left hand to control the extension of the head.

* Episiotomy:

It is done at crowning when the perineum is stretched to the degree that it is about to tear.

* Swab and aspirate:

The mouth and nose once the head is delivered before respiration is initiated and the liquor, meconium or blood is inhaled.

* Coils of the umbilical cord:

If present around the neck are slipped over the head but if tight or multiple they are cut between 2 clamps.

***Delivery of the shoulders***

Gentle downward traction is applied to the head till the anterior shoulder slips under the symphysis pubis. The head is lifted upwards to deliver the posterior shoulder first then downwards to deliver the anterior shoulder.

***Delivery of the remainder of the body***

Usually slips without difficulty otherwise gentle traction is applied to complete delivery.

After the delivery of the shoulders the baby is grasped around the chest to aid the birth of the trunk

Finally the body is slowly extracted by traction on the shoulders and lifts the baby towards the mother’s abdomen.

The time of delivery is noted

***Clamping and cutting the umbilical cord***

The baby is held by its ankles with the head downwards at a lower level than its mother for few seconds. This is contraindicated in:

* Preterm babies.
* Erythroblastosis foetalis.
* Suspicion of intracranial hemorrhage.

This may be enhanced by milking the cord towards the baby, to add about 100 ml of blood to its circulation.

The cord is divided between 2 clamps to avoid bleeding from a possible 2nd uniovular twin.

After cutting the cord a plastic crushing clamp is placed on the cord 1 to 2cm from the umbilicus and the cord is cut again 1cm beyond the clamp

**QUESTION 3: MANAGEMENT OF THIRD STAGE OF LABOUR**

Third stage is from the birth of the baby until expulsion of the placenta and membranes. There is increased risk of postpartum hemorrhage that last between 10 and 30 minutes

**Management**

* Assessment
* Place the baby in skin-to skin contact on the abdomen of the mother
* Dry the baby and assess the baby’s breathing and perform resuscitation if need be
* Cover baby’s head with a cloth or a bonnet to reduce temperature loss
* Cover the woman and the baby
* Uterotonic
* Administer an uterotonic e.g. oxytocin or misoprostol within 1 minute after the baby’s birth and after ruling out the presence of another baby
* Cord cutting
* Clamp and cut the cord after cord pulsations have ceased or approximately 2-3 minutes after birth
* Cover the cord with a piece of gauze when cutting the cord to avoid splashing of blood
* Perform Controlled cord traction
* Place the clamp near the woman’s perineum to make the procedure easier
* Hold the cord close to the perineum using a clamp
* Place the palm of the other hand on the lower abdomen just above the woman’s pubic bone to assess for uterine contractions
* Perform the procedure while at the same time supporting the uterus by applying external pressure on the uterus in an upward direction towards the woman’s head.
* Delivery of the placenta
* During the placenta delivery, hold and gently turn it with both hands until the membranes are twisted
* Slowly pull to complete the delivery
* Gently move membranes up and down until delivered
* Uterine massage
* Massage the uterus immediately after delivery of the placenta and membranes until it is firm
* Assist the woman during recovery to breastfeed
* Monitor the newborn and mother closely
* Palpate the uterus through the abdomen every 15minutes for 2 hours to make sure it is firm
* Monitor the amount of vaginal bleeding
* Provide prevention of mother-to-child transmission care as needed.