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**MATERNAL HEALTH AND NORMAL MIDWIFERY**

1. Use of pathograph in the management of first stage of labour
2. Management of second and third stages of labour

**ANSWER**

**INTRODUCTION**

A pathograph or partograph is a composite graphical record of key data (maternal and foetal) during labour entered against time on a single sheet of paper relevant measurement might include statistics such as cervical dilation, foetal heart rate, duration of labour and vital signs. It is intended to provide and recorded of the progress in labour so that any delay or deviation from normal may be detected quickly and treated accordingly. However, conclusions came that there is insufficient evidence to recommend partographs in standard labour, management, and care.

**COMPONENTS**

* Patients identification
* Time; it is recorded at an interval of 1hr.it is used generally in the first stage of labour.
* Fetal heart rate; it is recorded at the interval of 30 mins
* State of membrane and colour of liquor; “I” indicates intact membranes, “c” designates clear and “M” designates meconium stained liquor
* Cervical dilatation and descent of head
* Uterine contraction; Squares in vertical columns are shaded according to duration and intensity
* Drugs and fluids
* Blood pressure; it si recorded in vertical lines at an interval of two hours
* Pulse rate; It is also recorded in vertical lines at an interval of thirty minutes
* Oxytocin; Concentration is noted down in upper box; while dose is noted in lower box
* Urine analysis
* Temperature record

**ADVANTAGES**

* Provides information on single sheet of paper at a glance
* Early prediction of deviation from normal progress of labour
* Improvement in maternal morbidity, perinatal, morbidity and mortality

**LIMITATIONS**

* It requires a skilled health care worker who can fill and interpret the paragraph.
* Recent studies have shown there is no evidence that use is detrimental to outcomes
* Often paper-partograph and the equipment required to complete it are unavailable in low resource settings
* Despite decades of training and investment, implementation rates and capacity to correctly use the partograph are very low
* According to some recent literature, cervical dilatation over time is a poor predictor of severe adverse birth outcomes. This raises questions around the vadility of a partograph alert line.

**MANAGEMENT OF LABOUR USING PARTOGRAPH**

 The partograph with associated management guidelines is designed to improve the timing of the critical management decisions in labour. These are:

1. Transfer of a woman in labour from a peripheral unit (health care) to a central unit ( hospital with facilities for a caesarean section delivery)
2. Augumentin of a labour with oxytocin infusion
3. Termination of labour by operative delivery (usually caesarean section)

Based on the experiences WHO considered that the actions appropriate different points on the partograph should be as follows:

1. If cervical dilation remains on or to left of the alert line in the active phase – no action is indicated
2. If cervical dilation moves between the alert and action lines ( but not to action line)
* If a peripheral unit, transfer to a central unit
* If in a central unit, no specific action indicated
1. If cervical dilation reaches or crosses the action line;
* Review by medical staff with a view to augmentation, termination of labour or supportive therapy
1. Prolonged latent phase( 8hrs of observed latent phase)
* Review by medical staff

The WHO manuals for use with the partograph give little details on the suggested management. The manuals advice the development of local protocols.

**THE MANAGEMENT OF SECOND AND THIRD STAGE OF LABOUR**

**SECOND STAGE**

• Encourage the provision of emotional support during labour.

• Support the client in choosing a position in which to give birth.

• Pushing should generally not be encouraged unless an urge to do so is felt. If there is no urge to push after one hour during second stage, reassess the contractions, fetal presentation and descent, and consider amniotomy and the use of oxytocin if contractions are not adequate.

• Consider delayed pushing if the fetal head is in the transverse or posterior position. In nulliparas with epidural at full dilation, one can use delayed pushing for a maximum of two hours or can encourage immediate pushing.

• Continue epidural analgesia if it has been initiated, as research indicates that it does not increase the incidence of assisted vaginal birth. Discontinuing an epidural during second stage may result in the return of pain which may be perceived as worse than if no pain relief had been provided

• Do not sent time limits for the second stage as long as progress is being made. The setting of a time limit for the second stage in the presence of progress and absence of suspected fetal compromise is not well-evidenced.

• During active second stage, assess descent after each hour of pushing unless the fetal head is visible at the introitus, and consider a proactive approach to incoordinate uterine contractions, malposition or malpresentation.

• If labour is taking place out of hospital, consider the length of time it takes to transport to hospital and available hospital resources to facilitate timely access to monitoring and/or interventions if indicated.

• Avoid early intervention with operative delivery if fetal health surveillance is normal;

• Use gentle perineal support and warm compresses, and/or a “hands off” approach

• Use episiotomy only to expedite birth in situations of an abnormal fetal heart rate or maternal distress, or in the rare instance when the fetal head is at the perineum for a sustained period of time without further progress.

**THIRD STAGE OF LABOUR**

There are two ways of managing the third stage of labour:

1.The active method.

2.The passive method.

ACTIVE METHOD

* Whenever possible, the active method should be used. However, a midwife working on her own may need to use the passive method.
* Midwives who choose to use the passive method of managing the third stage of labour must also be able to confidently use the active method, as this method may have to be used in some patients.
* Everybody conducting a delivery must be able to use the active method of managing the third stage of labour.
* Immediately after the delivery of the infant, an abdominal examination is done to exclude a second twin.
* An oxytocic drug is given if no second twin is present.
* When the uterus contracts, controlled cord traction must be applied:
* Keep steady tension on the umbilical cord with one hand.
* Place the other hand just above the symphysis pubis and push the uterus upwards.

NOTE:Controlled cord traction is also called the Brandt-Andrews method (manoeuvre).

* Placental separation will take place when the uterus contracts. When controlled cord traction is applied the placenta will be delivered from the upper segment of the uterus.
* Once this occurs, continuous light traction on the umbilical cord will now deliver the placenta from the lower uterine segment or vagina.
* If placental separation does not take place during the first uterine contraction after giving the oxytocic drug, wait until the next contraction occurs and then repeat the manoeuvre.

Advantages:

1. Blood loss is less than when the passive method is used.
2. There is less possibility that additional oxytocin will be needed to contract the uterus following the third stage of labour.

Disadvantages:

1. The person actively managing the third stage of labour must not leave the patient. Therefore, an assistant is needed to give the oxytocic drug and examine the newborn infant, while the person conducting the delivery continues with the management of the third stage of labour.
2. The risk of a retained placenta is increased if the active method is not carried out correctly, especially if the first two contractions after the delivery of the infant are not used to deliver the placenta.
3. Excessive traction on the umbilical cord can result in inversion of the uterus, especially if the fundus of the uterus is not supported by placing a hand above the bladder on the abdomen.

PASSIVE METHOD

After delivery of the infant the signs of placental separation are waited for.

When the signs of placental separation appear, the patient is asked to bear down and the placenta is delivered spontaneously, by maternal effort only.

Only after the placenta has been delivered is an oxytocic drug given. Midwives working in a peripheral clinic or level 1 hospital may find this method useful, when they do not have an assistant while conducting a delivery.

This method is safe in most low-risk patients managed in clinics and hospitals.

Advantages:

1. No assistant is needed.
2. A retained placenta is less common than with the active method.

Disadvantages:

1. Blood loss is greater than with the active method.
2. The active method may be needed anyway, if:
3. There is excessive bleeding before delivery of the placenta.
4. The placenta does not separate spontaneously.

**The management of a retained placenta?**

Continue with the intravenous infusion of oxytocin and make sure that the uterus is well contracted. This will reduce the risk of postpartum haemorrhage.

While waiting for the theatre to be ready for transfer of the patient, check continuously whether the uterus remains well contracted and for excessive vaginal bleeding. The blood pressure and pulse must be measured and recorded every 30 minutes.

If the patient is at a clinic or a level 1 hospital without an operating theatre, she must be transferred to a level 2 or 3 hospital, for manual removal of the placenta under general anaesthesia.

Keep the patient nil per mouth.