Clinical procedures of Obstetrics and Gynecological Nursing

Part one (3)

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The Partograph

Introduction

Among the five major causes of maternal mortality in developing countries like Ethiopia (hypertension, haemorrhage, infection, obstructed labour and unsafe abortion), the middle three (haemorrhage, infection, obstructed labour) are highly correlated with prolonged labour. To be specific, postpartum haemorrhage and postpartum sepsis (infection) are very common when the labour gets prolonged beyond 18–24 hours. Obstructed labour is the direct outcome of abnormally prolonged labour; you will learn about this in detail in Study Session 9 of this Module. To avoid such complications, a chart called a partograph will help you to identify the abnormal progress of a labour that is prolonged and which may be obstructed. It will also alert you to signs of fetal distress.

In this study session, you will learn about the principles of using the partograph, the interpretation of what it tells you about the labour you are supervising, and what actions you should take when the recordings you make on the partograph deviate from the normal range. When the labour is progressing well, the record on the partograph reassures you and the mother that she and her baby are in good health.

When you have studied this session, you should be able to:

4.1Define and use correctly all of the key terms printed in bold. (SAQs 4.1 and 4.3(

4.2Describe the significance and the applications of the partograph in labour progress monitoring. (SAQs 4.1 and 4.2(

4.3\Describe the components of a partograph and state the correct time intervals for recording your observations and measurements. (SAQs 4.1 and 4.3(

4.4Describe the indicators in a partograph that show good progress of labour, and signs of fetal and maternal wellbeing. (SAQ 4.3(

4.5Identify the indicators in a partograph for immediate referral to a hospital during the labour. (SAQ 4.3(

4.1The value of using the partograph

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. Research studies have shown that maternal and fetal complications due to prolonged labour were less common when the progress of labour was monitored by the birth attendant using a partograph. For this reason, you should always use a partograph while attending a woman in labour, either at her home or in the Health Post.

In the study sessions in this Module, you have learned (or will learn) the major reasons why you need to monitor a labouring mother so carefully. Remember that a labour that is progressing well requires your help less than a labour that is progressing abnormally. Documenting your findings on the partograph during the labour enables you to know quickly if something is going wrong, and whether you should refer the mother to the nearest health centre or hospital for further evaluation and intervention.

4.2Finding your way around of the partograph

The partograph is actually your record chart for the labouring mother (Figure 4.1). It has an identification section at the top where you write the name and age of the mother, her 'gravida' and 'para' status, her Health Post or hospital registration number, the date and time when you first attended her for the delivery, and the time the fetal membranes ruptured (her 'waters broke.('

What is the difference between a woman who is a multigravida and one who is a multipara?

A multigravida is a woman who has been pregnant at least once before the current pregnancy. A multipara is a woman who has previously given birth to live babies at least twice before now.

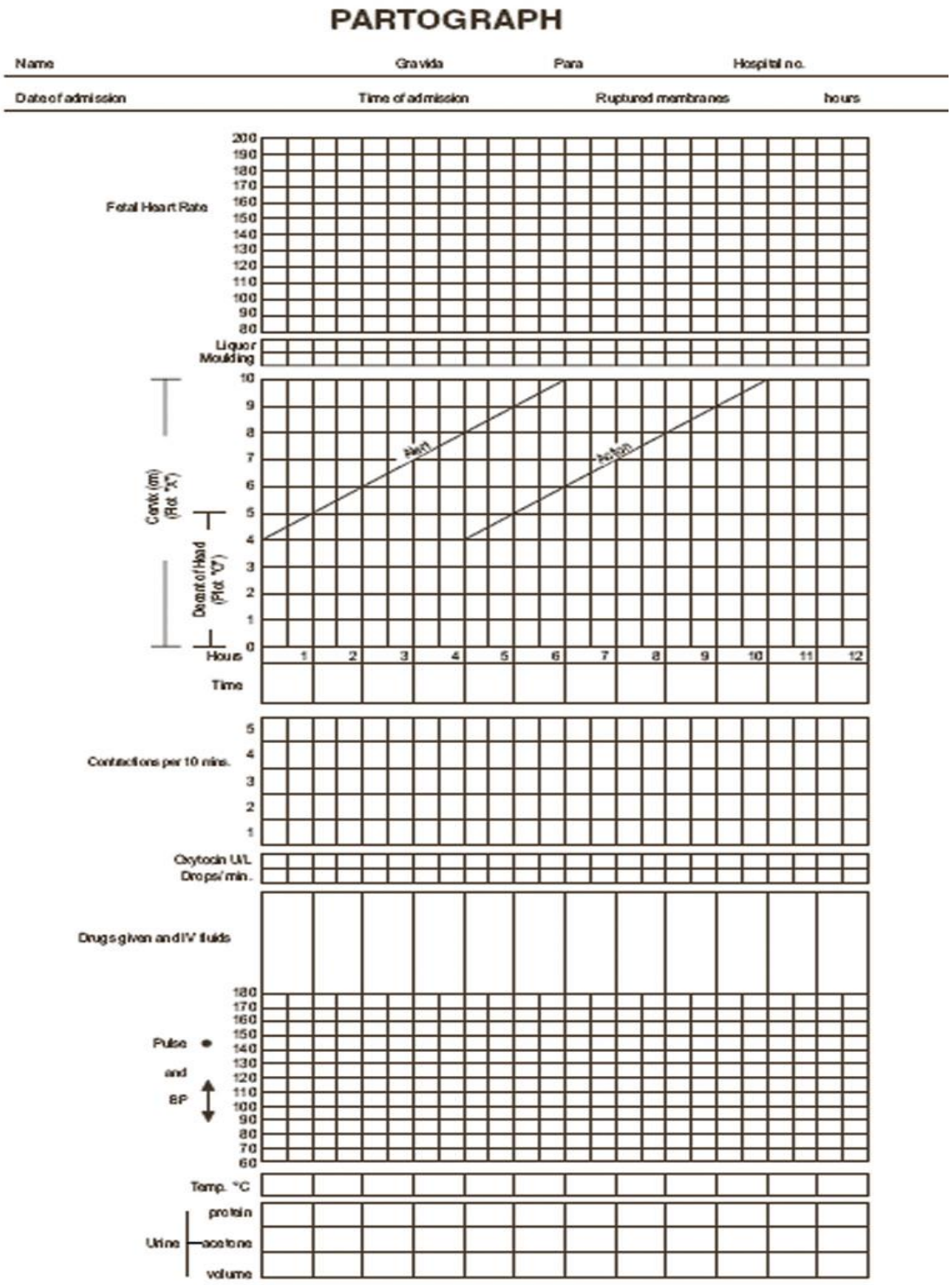
On the back of the partograph (if you are not using another chart), you can also record some significant facts, such as the woman's past obstetric history, past and present medical history, any findings from a physical examination and any interventions you initiate (including medications, delivery notes and referral.(

4.2.1The graph sections of the partograph

The graph sections of the partograph are where you record key features of the fetus or the mother in different areas of the chart. We will describe each feature, starting from the top of Figure 4.1 and travelling down the partograph.

Immediately below the patient's identification details, you record the Fetal Heart Rate initially and then every 30 minutes. The scale for fetal heart rate covers the range from 80 to 200 beats per minute.

Below the fetal heart rate, there are two rows close together. The first of these is labelled Liquor – which is the medical term for the amniotic fluid; if the fetal membranes have ruptured, you should record the colour of the fluid initially and every 4 hours.



The row below ‘Liquor’ is labelled Moulding; this is the extent to which the bones of the fetal skull are overlapping each other as the baby’s head is forced down the birth canal; you should assess the degree of moulding initially and every 4 hours

Figure 4.1 The partograph showing where to enter the patient’s identification details at the top and the graphic component below.

Below ‘Moulding’ there is an area of the partograph labelled Cervix (cm) (Plot X) for recording cervical dilatation, i.e. the diameter of the mother’s cervix in centimetres. This area of the partograph is also where you record Descent of Head (Plot O), which is how far down the birth canal the baby’s head has progressed. You record these measurements as either X or O, initially and every 4 hours. There are two rows at the bottom of this section of the partograph to write the number of hours since you began monitoring the labour and the time on the clock.

The next section of the partograph is for recording Contractions per 10 mins (minutes) initially and every 30 minutes.

Below that are two rows for recording administration of Oxytocin during labour and the amount given. (You are NOT supposed to do this – it is for a doctor to decide! However, you will be trained to give oxytocin after the baby has been born if there is a risk of postpartum haemorrhage(.

The next area is labelled Drugs given and IV fluids given to the mother.

Near the bottom of the partograph is where you record the mother’s vital signs; the chart is labelled Pulse and BP (blood pressure) with a possible range from 60 to 180. Below that you record the mother’s Temp °C (temperature.(

At the very bottom you record the characteristics of the mother’s Urine: protein, acetone, volume. You learned how to use urine dipsticks to test for the presence of a protein (albumin) during antenatal care.

You learned about giving IV (intravenous) fluid therapy to women who are haemorrhaging in Study Session 22 of the Antenatal Care Module.

What can you tell from the colour of the amniotic fluid?

If it has fresh bright red blood in it, this is a warning sign that the mother may be haemorrhaging internally; if it has dark green meconium (the baby’s first stool) in it, this is a sign of fetal distress.

4.2.2The Alert and Action lines

In the section for cervical dilatation and fetal head descent, there are two diagonal lines labelled Alert and Action. The Alert line starts at 4 cm of cervical dilatation and it travels diagonally upwards to the point of expected full dilatation (10 cm) at the rate of 1 cm per hour. The Action line is parallel to the Alert line, and 4 hours to the right of the Alert line. These two lines are designed to warn you to take action quickly if the labour is not progressing normally.

You should refer the woman to a health centre or hospital if the marks recording cervical dilatation cross over the Alert line, i.e. indicating that cervical dilation is proceeding too slowly. (The Action line is for making decisions at health-facility level(.

4.3Recording and interpreting the progress of labour

As you learned in Study Session 1 of this Module, a normally progressing labour is characterised by at least 1 cm per hour cervical dilatation, once the labour has entered the active first stage of labour.

Another important point is that (unless you detect any maternal or fetal problems), every 30 minutes you will be counting fetal heart beats for one full minute, and uterine contractions for 10 minutes.

You should do a digital vaginal examination initially to assess:

The extent of cervical effacement (look back at Figure 1.1) and cervical dilatation

The presenting part of the fetus

The status of the fetal membranes (intact or ruptured) and amniotic fluid

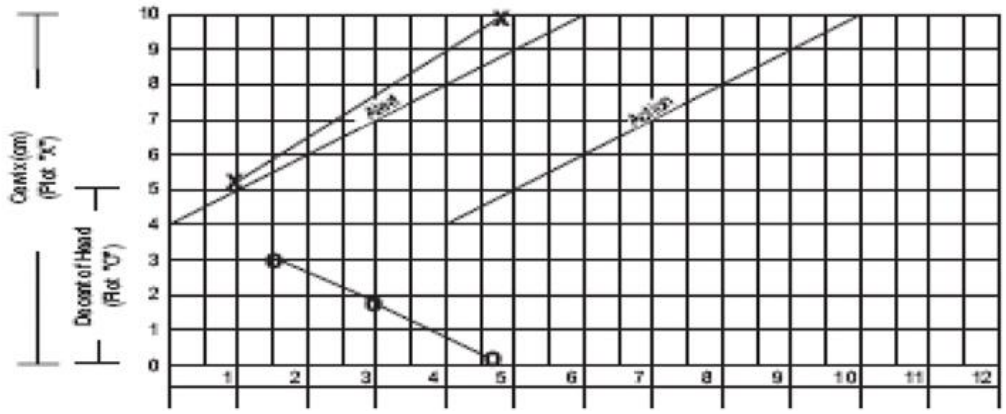
The relative size of the mother’s pelvis to check if the brim is wide enough for the baby to pass through.

Thereafter, in every 4 hours you should check the change in:

Cervical dilatation

Development of cervical oedema (an initially thin cervix may become thicker if the woman starts to push too early, or if the labour is too prolonged with minimal change in cervical dilatation(

Position (of the fetus, if you are able to identify it(



Fetal head descent

Development of moulding and caput (Study Session 2 in this Module(

Amniotic fluid colour (if the fetal membranes have already ruptured.(

You should record each of your findings on the partograph at the stated time intervals as labour, progresses. The graphs you plot will show you whether everything is going well or one or more of the measurements is a cause for concern. When you record the findings on the partograph, make sure that:

You use one partograph form per each labouring mother. (Occasionally, you may make a diagnosis of true labour and start recording on the partograph, but then you realise later that it was actually a false labour. You may decide to send the woman home or advise her to continue her normal daily activities. When true labour is finally established, use a new partograph and not the previously started one.(

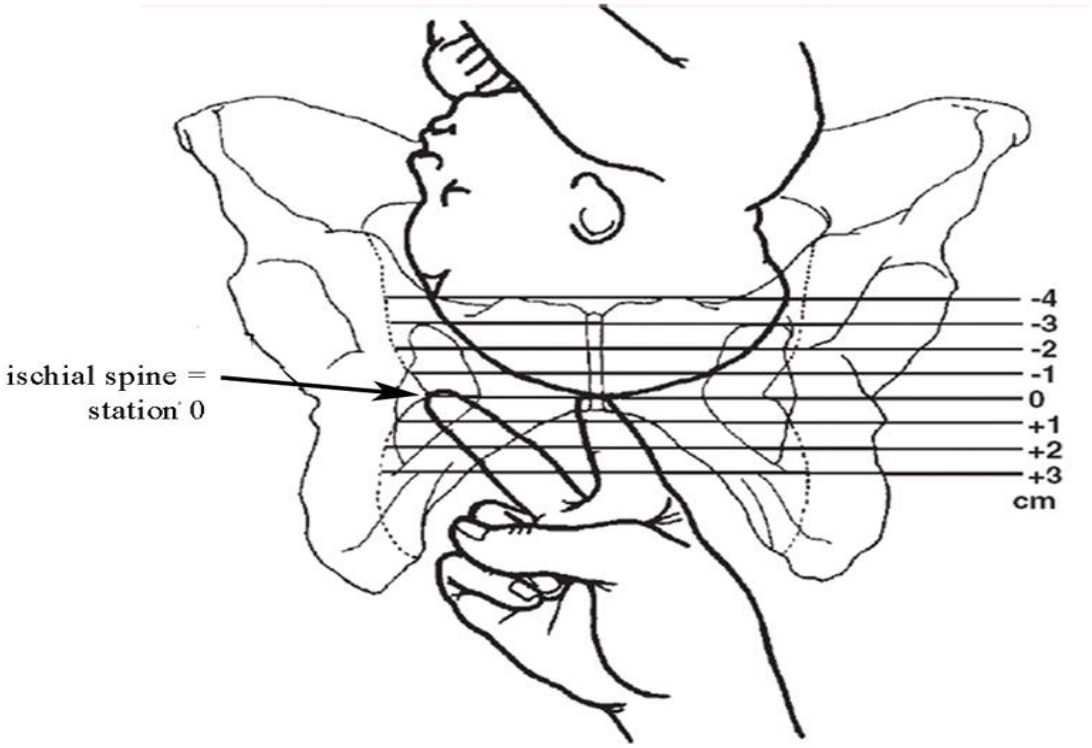
You start recording on the partograph when the labour is in active first stage (cervical dilation of 4 cm and above.(

Your recordings should be clearly visible so that anybody who knows about the partograph can understand and interpret the marks you have made.

If you have to refer the mother to a higher level health facility, you should send the partograph with your referral note and record your interpretation of the partograph in the note.

Without looking back over the previous sections, quickly write down the partograph measurements that you must make in order to monitor the progress of labour.

Compare your list with the partograph in Figure 4.1. If you are at all uncertain about any of the measurements, then re-read Sections 4.2 and 4.3.



4.4Cervical dilatation

As you learned in Study Session 1 of this Module, the first stage of labour is divided into the latent and the active phases. The latent phase at the onset of labour lasts until cervical dilatation is 4 cm and is accompanied by effacement of the cervix (as shown in Figure 1.1 previously). The latent phase may last up to 8 hours, although it is usually completed more quickly than this. Although regular assessments of maternal and fetal wellbeing and a record of all findings should be made, these are not plotted on the partograph until labour enters the active phase.

Vaginal examinations are carried out approximately every 4 hours from this point until the baby is born. The active phase of the first stage of labour starts when the cervix is 4

cm dilated and it is completed at full dilatation, i.e. 10 cm. Progress in cervical dilatation during the active phase is at least 1 cm per hour (often quicker in multigravida mothers.(

In the cervical dilatation section of the partograph, down the left side, are the numbers 0–10. Each number/square represents 1 cm dilatation. Along the bottom of this section are 24 squares, each representing 1 hour. The dilatation of the cervix is estimated by vaginal examination and recorded on the partograph with an X mark every 4 hours. Cervical dilatation in multipara women may need to be checked more frequently than every 4 hours in advanced labour, because their progress is likely to be faster than that of women who are giving birth for the first time.

In the example in Figure 4.2, what change in cervical dilatation has been recorded over what time period?

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Figure 4.2 An example of how to record cervical dilatation (marked by Xs) and fetal head descent (marked by 0s) using a partograph.

The cervical dilatation was about 5 cm at 1 hour after the monitoring of this labour began; after another four hours, the mother's cervix was fully dilated at 10 cm.

If progress of labour is satisfactory, the recording of cervical dilatation will remain on, or to the left, of the alert line.

If the membranes have ruptured and the woman has no contractions, do not perform a digital vaginal examination, as it does not help to establish the diagnosis and there is a risk of introducing infection. (PROM, premature rupture of membranes, was the subject of Study Session 17 of the Antenatal Care Module(.

4.5Descent of the fetal head

For labour to progress well, dilatation of the cervix should be accompanied by descent of the fetal head, which is plotted on the same section of the partograph, but using O as the symbol. But before you can do that, you must learn to estimate the progress of fetal descent by measuring the station of the fetal head, as shown in Figure 4.3. The station can only be determined by examination of the woman's vagina with your gloved fingers, and

by reference to the position of the presenting part of the fetal skull relative to the ischial spines in the mother's pelvic brim.

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Figure 4.3 Assessing the station (descent) of the fetal head by vaginal examination, relative to the ischial spines in the mother's pelvic brim. (Source: WHO, 2008, Midwifery Education Module: Managing Prolonged and Obstructed Labour, Figure 7.28, page 132(

As you can see from Figure 4.3, when the fetal head is at the same level as the ischial spines, this is called station 0. If the head is higher up the birth canal than the ischial spines, the station is given a negative number. At station –4 or –3 the fetal head is still 'floating' and not yet engaged; at station –2 or –1 it is descending closer to the ischial spines.

If the fetal head is lower down the birth canal than the ischial spines, the station is given a positive number. At station +1 and even more at station +2, you will be able to see the presenting part of baby's head bulging forward during labour contractions. At station +3 the baby's head is crowning, i.e. visible at the vaginal opening even between contractions. The cervix should be fully dilated at this point.

Now that you have learned about the different stations of fetal descent, there is a complication about recording these positions on the partograph. In the section of the partograph where cervical dilatation and descent of head are recorded, the scale to the left has the values from 0 to 10. By tradition, the values 0 to 5 are used to record the level of fetal descent. Table 4.1 shows you how to convert the station of the fetal head (as shown in Figure 4.3) to the corresponding mark you place on the partograph by writing O. (Remember, you mark fetal descent with Os and cervical dilatation with Xs, so the two are not confused(.

When the baby's head starts crowning (station +3), you may not have time to record the O mark on the partograph!

Table 4.1 Corresponding positions of the station of the fetal head (determined by vaginal examination) and the record of fetal descent on the partograph.

Station of fetal head (Figure 4.3)	Corresponding mark on the partograph
–3	5
–2	4
1-	3
0	2
+1	1
+2	0

Crowning means that the presenting part of the baby's head remains visible between contractions; this indicates that the cervix is fully dilated.

4.6Assessing moulding and caput formation

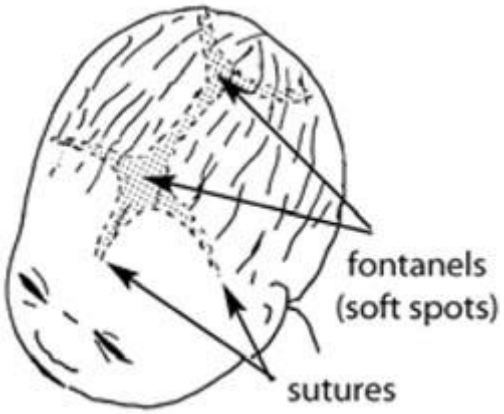


Figure 4.4 Sutures and fontanels in the newborn's skull.

The five separate bones of the fetal skull are joined together by sutures, which are quite flexible during the birth, and there are also two larger soft areas called fontanels (Figure 4.4). Movement in the sutures and fontanels allows the skull bones to overlap each other to some extent as the head is forced down the birth canal by the contractions of the uterus. The extent of overlapping of fetal skull bones is called moulding, and it can produce a pointed or flattened shape to the baby's head when it is born (Figure 4.5.(

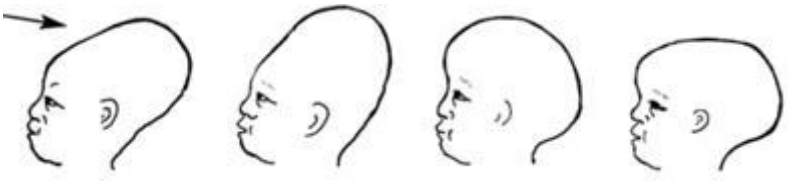


Figure 4.5 Normal variations in moulding of the newborn skull, which usually disappears within 1–3 days after the birth.

Some baby's skulls have a swelling called a caput in the area that was pressed against the cervix during labour and delivery (Figure 4.6); this is common even in a labour that is progressing normally. Whenever you detect moulding or caput formation in the fetal skull as the baby is moving down the birth canal, you have to be more careful in evaluating the mother for possible disproportion between her pelvic opening and the size of the baby's head. Make sure that the pelvic opening is large enough for the baby to pass through. A small pelvis is common in women who were malnourished as children, and is a frequent cause of prolonged and obstructed labour.

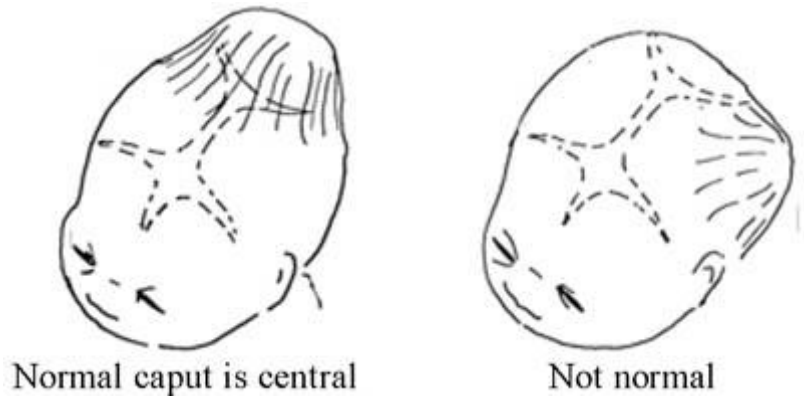


Figure 4.6 A caput (swelling) of the fetal skull is normal if it develops centrally, but not if it is displaced to one side.

A swelling on one side of the newborn's head is a danger sign and should be referred urgently; blood or other fluid may be building up in the baby's skull.

4.6.1 Recording moulding on the partograph

To identify moulding, first palpate the suture lines on the fetal head (look back at Figure 1.4 in the first study session of this Module) and appreciate whether the following conditions apply. The skull bones that are most likely to overlap are the parietal bones,

which are joined by the sagittal suture, and have the anterior and posterior fontanels to the front and back.

Sutures apposed: This is when adjacent skull bones are touching each other, but are not overlapping. This is called degree 1 moulding (+1.(

Sutures overlapped but reducible: This is when you feel that one skull bone is overlapping another, but when you gently push the overlapped bone it goes back easily. This is called degree 2 moulding (+2.(

Sutures overlapped and not reducible: This is when you feel that one skull bone is overlapping another, but when you try to push the overlapped bone, it does not go back. This is called degree 3 moulding (+3). If you find +3 moulding with poor progress of labour, this may indicate that the labour is at increased risk of becoming obstructed.

You need to refer the mother urgently to a health facility if you identify signs of an obstructed labour. You will learn more about this in Study Session 9.

When you document the degree of moulding on the partograph, use a scale from 0 (no moulding) to +3, and write them in the row of boxes provided:

0Bones are separated and the sutures can be felt easily.

1+Bones are just touching each other.

2+Bones are overlapping but can be separated easily with pressure by your finger.

3+Bones are overlapping but cannot be separated easily with pressure by your finger.

In the partograph, there is no specific space to document caput formation. However, caput detection should be part of your assessment during each vaginal examination. Like moulding, you grade the degree of caput as 0, +1, +2 or +3. Because of its subjective nature, grading the caput as +1 or +3 simply indicates a ‘small’ and a ‘large’ caput respectively. You can document the degree of caput either on the back of the partograph, or on the mother’s health record (if you have it.(

Imagine that you are assessing the degree of moulding of a fetal skull. What finding would make you refer the woman in labour most urgently, and why?

If you found +3 moulding and the labour was progressing poorly, it may mean there is uterine obstruction.

4.7Uterine contractions

You already know that good uterine contractions are necessary for good progress of labour (Study Session 2). Normally, contractions become more frequent and last longer as labour progresses. Contractions are recorded every 30 minutes on the partograph in their own section, which is below the hour/time rows. At the left hand side is written ‘Contractions per 10 mins’ and the scale is numbered from 1–5. Each square represents one contraction, so that if two contractions are felt in 10 minutes, you should shade two squares.

On each shaded square, you will also indicate the duration of each contraction by using the symbols shown in Figure 4.7.

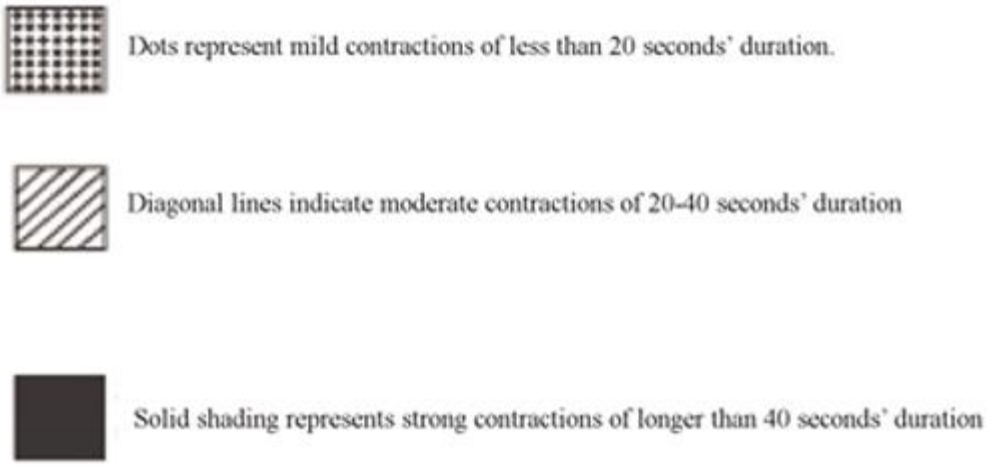


Figure 4.7 Different shading on the squares you draw on the partograph indicates the strength and duration of contractions.

4.8Assessment and recording of fetal wellbeing

How do you know that the fetus is in good health during labour and delivery? The methods open to you are limited, but you can assess fetal condition:

By counting the fetal heart beat every 30 minutes;

If the fetal membranes have ruptured, by checking the colour of the amniotic fluid.

4.8.1Fetal heart rate as an indicator of fetal distress

The normal fetal heart rate at term (37 weeks and more) is in the range of 120–160 beats/minute. If the fetal heart rate counted at any time in labour is either below 120 beats/minute or above 160 beats/minute, it is a warning for you to count it more frequently until it has stabilised within the normal range. It is common for the fetal heart rate to be a bit out of the normal range for a short while and then return to normal. However, fetal distress during labour and delivery can be expressed as:

Fetal heart beat persistently (for 10 minutes or more) remains below 120 beats/minute (doctors call this persistent fetal bradycardia.(

Fetal heart beat persistently (for 10 minutes or more) remains above 160 beats/minute (doctors call this persistent fetal tachycardia.(

4.8.2Causes of fetal distress

There are many factors that can affect fetal wellbeing during labour and delivery. You learned in the Antenatal Care Module (Study Session 5) that the fetus is dependent on good functioning of the placenta and good supply of nutrients and oxygen from the maternal blood circulation. Whenever there is inadequacy in maternal supply or placental function, the fetus will be at risk of asphyxia, which is going to be manifested by the fetal heart beat deviating from the normal range. Other factors that will affect fetal wellbeing, which may be indicated by abnormal fetal heart rate, are shown in Box 4.1.

You learned about hypertensive disorders of pregnancy, maternal anaemia and placental abruption in Study Sessions 18, 19 and 21 of the Antenatal Care Module, Part 2.

Box 4.1 Reasons for fetal heart rate deviating from the normal range

Placental blood flow to the fetus is compromised, which commonly occurs when there is:

Hypertensive disorder of pregnancy

Maternal anaemia

Decreased maternal blood volume (hypovolemia) due to blood loss, or body fluid loss through vomiting and diarrhoea

Maternal hypoxia (shortage of oxygen) due to maternal heart or lung disease, or living in a very high altitude

A placenta which is ‘aged’

Amniotic fluid becomes scanty, which prevents the fetus from moving easily; the umbilical cord may become compressed against the uterine wall by the baby’s body

Umbilical cord is compressed because of prolapsed (coming down the birth canal ahead of the fetus), or is entangled around the baby’s neck

Placenta prematurely separates from the uterine wall (placental abruption.(

With that background in mind, counting the fetal heart beat every 30 minutes and recording it on the partograph, may help you to detect the first sign of any deviation for the normal range. Once you detect any fetal heart rate abnormality, you shouldn’t wait for another 30 minutes; count it as frequently as possible and arrange referral quickly if persists for more than 10 minutes.

4.8.3Recording fetal heart rate on the partograph

The fetal heart rate is recorded at the top of the partograph every half hour in the first stage of labour (if every count is within the normal range), and every 5 minutes in the second stage. Count the fetal heart rate:

As frequently as possible for about 10 minutes and decide what to do thereafter.

Count every five minutes if the amniotic fluid (called liquor on the partograph) contains thick green or black meconium.

Whenever the fetal membranes rupture, because occasionally there may be cord prolapse and compression, or placental abruption as the amniotic fluid gushes out.

Each square for the fetal heart on the partograph represents 30 minutes. When the fetal heart rate is in the normal range and the amniotic fluid is clear or only lightly blood-stained, you can record the results on the partograph, as in the example in Figure 4.8. When you count the fetal heart rate at less than 30 minute intervals, use the back of the partograph to record each measurement. Prepare a column for the time and fetal heart rate.

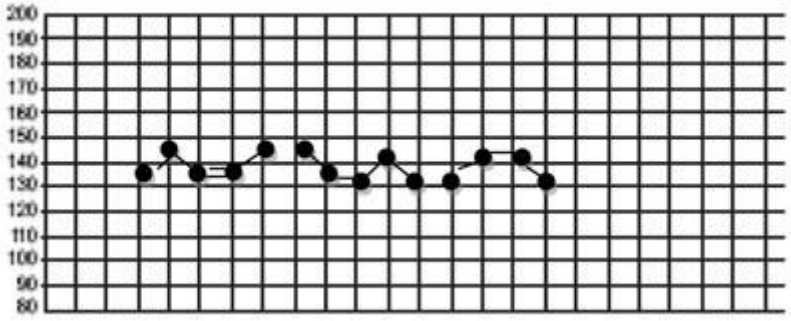


Figure 4.8 Example of normal fetal heart rate recorded on the partograph at 30 minute intervals.

4.8.4Amniotic fluid as an indicator of fetal distress

Another indicator of fetal distress which has already been mentioned is meconium-stained amniotic fluid (greenish or blackish liquor). Lightly stained amniotic fluid may not necessarily indicate fetal distress, unless it is accompanied by persistent fetal heart rate deviations outside the normal range. The following observations are made at each vaginal examination and recorded on the partograph, immediately below the fetal heart rate recordings.

If the fetal membranes are intact, write the letter ‘I’ (for ‘intact.(’

If the membranes are ruptured and:

liquor is absent, write ‘A’ (for ‘absent(’

liquor is clear, write ‘C’ (for ‘clear(’

liquor is blood-stained, record ‘B’

liquor is meconium-stained, record ‘M1’ for lightly stained, ‘M2’ for a little bit thick and ‘M3’ for very thick liquor which is like soup (see Box 4.2.(

Box 4.2 Extent of meconium staining

Refer the woman in labour to a higher health facility as early as possible if you see:

M1 liquor in latent first stage of labour, even with normal fetal heart rate.

M2 liquor in early active first stage of labour, even with normal fetal heart rate.

M3 liquor in any stage of labour, unless progressing fast.

4.9Assessment of maternal wellbeing

During labour and delivery, after your thorough initial evaluation, maternal wellbeing is followed by measuring the mother's vital signs: blood pressure, pulse, temperature, and urine output. Blood pressure is measured every four hours. Pulse is recorded every 30 minutes. Temperature is recorded every 2 hours. Urine output is recorded every time urine is passed. If you identify persistent deviations from the normal range of any of these measurements, refer the mother to a higher health facility.

Summary of Study Session 4

In Study Session 4, you have learned that:

The partograph is a valuable tool to help you detect abnormal progress of labour, fetal distress and signs that the mother is in difficulty.

The partograph is designed for recording maternal identification, fetal heart rate, colour of the amniotic fluid, moulding of the fetal skull, cervical dilatation, fetal descent, uterine contractions, whether oxytocin was administered or intravenous fluids were given, maternal vital signs and urine output.

Start recording on the partograph when the labour is in active first stage (4 cm or above.(

Cervical dilatation, descent of the fetal head and uterine contractions are used in assessing the progress of labour. About 1 cm/hour cervical dilatation and 1 cm descent in four hours indicate good progress in the active first stage.

Fetal heart rate and uterine contractions are recorded every 30 minutes if they are in the normal range. Assess cervical dilatation, fetal descent, the colour of amniotic fluid (if fetal membranes have ruptured), and the degree of moulding or caput every four hours.

Do a digital vaginal examination immediately if the membranes rupture and a gush of amniotic fluid comes out while the woman is in any stage of labour.

Refer the woman to health centre or hospital if the cervical dilatation mark crosses the Alert line on the partograph.

When you identify +3 moulding of the fetal skull with poor progress of labour, this indicates labour obstruction, so refer the mother urgently.

Fetal heart rate below 120/min or above 160/min for more than 10 minutes is an urgent indication to refer the mother, unless the labour is progressing too fast.

Even with a normal fetal heart rate, refer if you see amniotic fluid (liquor) lightly stained with meconium in latent first stage of labour, or moderately stained in early active first stage of labour, or thick amniotic fluid in all stages of labour, unless the labour is progressing too fast.

Self-Assessment Questions (SAQs) for Study Session 4

Now that you have completed this study session, you can assess how well you have achieved its Learning Outcomes by answering the following questions. Write your answers in your Study Diary and discuss them with your Tutor at the next Study Support Meeting. You can check your answers with the Notes on the Self-Assessment Questions at the end of this Module.

Read Case Study 4.1 and then answer the questions that follow it.

Case Study 4.1 Bekelech's story

Bekelech is a gravida 5, para 4 mother, whose current pregnancy has reached the gestational age of 40 weeks and 4 days. When you arrive at her house, she is already in labour. During your first assessment, she had four contractions in 10 minutes, each lasting 35–40 seconds. On vaginal examination, the fetal head was at –3 station and Bekelech's cervix was dilated to 5 cm. The fetal heart rate at the first count was 144 beats/min.

SAQ 4.1 (tests Learning Outcomes 4.1, 4.2 and 4.3(

a.What does it mean to say that Bekelech is a 'gravida 5, para 4 mother?'

b.How would you describe the gestational age of Bekelech's baby?

c.Which stage of labour has she reached and is the baby's head engaged yet?

d.Is the fetal heart rate normal or abnormal?

e.What would you do to monitor the progress of Bekelech's labour?

f.How often would you do a vaginal examination in Bekelech's case and why?

Answer

a.As a gravida 5, para 4 mother you know that Bekelech has had 5 pregnancies of which 1 has not resulted in a live birth.

b.At 40 weeks and 4 days the gestation is term (or full term.(

c.Bekelch's cervix has dilated to 5 cm and she is having four contractions in 10 minutes of 35-40 seconds each, so she has entered the active phase of first stage labour. At -3 station, the fetal head is not yet engaged.

d.The fetal heart rate is within the normal range of 120-160 beats/minute.

e.As Bekelech's labour is in the active phase and her cervix has dilated to more than 4 cm, you immediately begin regular monitoring of the progress of her labour, her vital signs, and indicators of fetal wellbeing distress. You record of all these key measurements on the partograph (refer again to Figure 4.1 and Section 4.2.1.(

f.You decide to do vaginal examinations more frequently than the advisory four hours, because Bekelech's labour may progress quite quickly as she is a multigravida/multipara mother. And you keep alert to the possibility of something going wrong, because Bekelech has already lost one baby before it was born.

SAQ 4.2 (tests Learning Outcome 4.2(

Give two reasons for using a partograph.

Answer

Two key reasons for using a partograph are because:

a.If used correctly it is a very useful tool for detecting whether or not labour is progressing normally, and therefore whether a referral is needed. When the labour is progressing well, the record on the partograph reassures you and the mother that she and her baby are in good health.

b.Research has shown that fetal complications of prolonged labour are less common when the birth attendant uses a partograph to monitor the progress of labour.

SAQ 4.3 (tests Learning Outcomes 4.1, 4.3, 4.4 and 4.5(

a.What indicators of good progress of labour would you record on the partograph?

b.What indicators of fetal wellbeing would you record on the partograph?

c.How often should you measure the vital signs of the mother and record them on the partograph in a normally progressing labour?

d.What are the key indicators for immediate referral?

Answer

a.Good progress of labour is indicated by: a rate of dilation of the cervix that keeps it on or to the left of the alert line; evidence of fetal descent coinciding with cervical dilation; and contractions which show a steady increase in duration and the number in 10 minutes.

b.Fetal wellbeing is indicated by: a fetal heart rate between 120-160 beats/minute (except for slight changes lasting less than 10 minutes); moulding (overlapping of fetal skull bones) of not more than +2; and clear or only slightly stained liquor (C or M1.(

c.In a normally progressing labour, you would measure the mother's blood pressure (every 4 hours), pulse (every 30 minutes), temperature (every 2 hours) and urine (every time it is passed), and record them on the partograph.

d.Indicators for immediate referral include: slow rate of cervical dilation (to the right of the Alert line on the partograph); poor progress of labour, together with +3 moulding of the fetal skull; fetal heartbeat persistently below 120 or above 160 beats/minute; liquor (amniotic fluid) stained with meconium, depending on the stage of labour, even with normal fetal heart rate: (refer M1 liquor in latent first stage; M2 liquor in early active first stage, and M3 liquor in any stage, unless labour is progressing fast

Abdominal Examination

Examination During pregnancy

***Definition** :-

It is a visual,tactile,and or audible examination of the woman s abdomen.

***Objectives :-**

I-To detect any abnormality of abdominal organs.

2-To confirm pregnancy.

3-To estimate the period of gestation.

4-To assess fetal well-being by checking fetal movement and fetal heart sounds.

5-To determine presentation, lie, position,and engagment of the presenting part.

***Equiplnent:-**

-pinard fetoscope or sonic fetal heart sound device.

-Client record .

***Methods ofExamination:**--Inspection.

-Palpation.

Steps	**Rational**
Pre are equipments	
Welcome the woman and Explain the procedure	To obtain verbal consent and Co-operation
Ensure an empty bladder	A Full bladder will cause discomfort and cause wrong fundal height.
- provide privacy	- Show respect and feeling of self value.
Position her on the examination couch on her back with knees slightly flexed and seperated .put pillow under her head and put arms down on her side.	- To relax abdominal muscles and reduce the risk of supine hypotension.
-Expose the abdomen fully, leaving legs and pubic area covered.	To maintain privacy
Inspection -Observe the abdomen for:- -shape and size in relation to the period of amenorrhea . -Fetal movements -Skin coditiions are three:- I-Scars 2-Linea-negra 3- striae-gravidarum found in (abdomen,breasts,thighs,and buttocks.)	- To get a rough idea about utrine size and muscles tone,fetal lie affects the shape. -Indicate living fetus and his position. -Inddicate previous surgery specially C.S. It is adark brown line from the umblica to the symphsis pubis. It is silver or red patches or lines due to over stretching of the skin ,found
***Pal ation** l	

-Assessment of fundal height -place the ulnar of left hand just below the xiphisternum till curve of fundus is felt measure the number of fingers ca fit between the fingers and xiphisternum	To estimate the period of gestation. To determine weeks of gestation, at symphsis 12wks, at umblica 24wks,at xiphisternum 36wks,at 40wks below xiphisternum with 3-4 fingers
Note:- Palpation is done in 3 special Move:ment with warm relaxed hands and arms, using the pads of fingers in smooth movements over the abdomen.	To avoide discomfort to the woman and causing contraction
First Maneuver(Fundal Papation):--Facing the woman,s head. Place hands palm and fingers close together on the fundus, using fingers pads palpate the fundus	- To determine which part of fetus isoccupying the fundus.
Second Maneuver(lateral grip):-	
·Place hands on each side of the abdomen -Use one hand to steady the uterus and the other to palpate, Alternate hands and wal finger pads of both hands over the abdomen to feel the back and determine th position&lie and small parts.	Tolocate the fetal back and limbs - The side occupies the back which is felt regular, large, smooth and firm, The side opposite to the back will feel limbs which are soft, irregular

third Maneuver : (first pelvic grip **)** -_- - _ -Facing the woman s feet,place both hands on the uterus just below the umbilicus with fingers close together &pointing downwards &inwards	-To detem1ine which fetal part is occupying the lower part of the uterus(the presenting part).

Immediate baby care

Introduction

During the first and second stages of labor, the mother has been the primary I Central aspect of attention, as the newborn comes to the outside world, the ,

I

Term fetus is no longer applied .By the newborn arrival, it is the end of the

J Mother journey after 40 weeks, the fruit of her labor will soon be in her hand

< The newborn infant receives direct attention as the physician and the nurse car for :

the immediate needs of the newborn. !

;

Q!!jectives :

, 1 - To establish and maintain respiratory function. 2 - To provide warms and prevents hypothermia. 3- To stimulate circulation and maintain health.

4 - To ensure safety and prevent infection.

5- To identify actual and potential problems that might need immediate act.ion .

Equipment:

I-Vacuum suction

2-Sterile catheter and oxygen 3-Cord clamp.

4- sterile scissor and two arteries 5-Rectal thermometer.

6-Eye drop.

7- Cotton balls.

8- Warm sterile towel. 9-Alcohol 70%. IO-Gauze.

11- Birth record. I

Principles of Delivery to Ensure At/equate Resuscitation of Tile 111[l1l1t: I

I

* Remember the following ABCW principles:

* Air way. * Breathing.

* Circulation. '. * Warms.

Nursing Action	Rational	Notes
1- Suctioning: , To prevent * Wash hands cross gloves. and wear Infection		
* Receive newborn in To avoid hypothermia warm towel and place under radiant heater.	Hypothermia IS very : difficult. to reverse and the effective treatment is prevention.	
~Place the newborn In To drain mucous trendlenburg position. secretion by gravity.	and This position stimulate the brain centers and ' improve circulation	
*-Start suctioning from To ensure pattent all"Way. oropharyngeal canal first and then if needed naso- pharengeal suctioning . * Administration of For central cyanosis oxygen if needed. * Avoid deep suctioning. Can stimulate vagus nerve and decrease heart rate.	Gentle suction to prevent mucosal injury Insl.fficient oxygen may lead to any brain center defect To prevent mucosal InJury.	
2-Physical examination: A-Apgar Score:		
For evaluation condition. B- Vital Signs * Apical Pulse. orthe newborn Normal 120 - 140 b \ pulse m .		

Osculate chest for heart beats with stethoscope for one minute . * Respiratory Rate. Count respiratory rate for one minute and observe Depth.	* Rectal Temperature. For evaluation of the Newborn condition. To identify any anomalies.	Normal Respiratory rectal rate30-40C\m. , mostly shallow Normal skin temperature 36.4-37 c .

c-Growth Measurements: *Length

-Remove the newborn For accurate height towel

-Place the newborn In For accurate height sup me position , grasp

the knee until the legs

are extended

* Weight

-Check the scale balance at zero line -Place the newborn on the scale without clothes

-Keep your hands

above the infant body

without touching

*Head Circumference

-Place the meaSUrIng

tape above the ~emporal

bones.

t

-Normal measurements

;

33-35cm

*Chest Circumference -Place the tape above the nipple line

Normal measurements

30-33cm

* Assess for any growth deformity or congenital defect

&Head

-Observe for any abnormalities such as , absence of one ear -Face feature suggest the defect ,such as down syndrome

-The mouth shuuld be observed for cleft lip and sleft pal~te

Approximately i 50cm , but genetic , factors play a role in :

determining the

length of the infant

Normal weight scale 2.5-3.5 cm .

-To check the

patience

- for accurate measurements

-to prevent the infant from

falling down.

F or appropriate

system

It is the largest measurements, it

~

appear larger than the !

body and may have i elongated shapy due to ;

molding during labor

It is smallest than head circumference

&Umbilicus -Observe congenital

it hernia

&Anus

-Should oe observed

- Cord Care

-Wash the hands before manipulating the cord ~Use sterile plastic clamp or 'ligature ,the first cla~p at 5cm from umbuilicus and the second at 1 cm Further -Cut the cord by sterile scissors after the second

clamp -Examine structure

-Paint the end of the sturn with alcohol

4-Eye care

- Wash the hands

-Eyelids should be

cleaned with sterile

moistened cotton ball fi'om inside to outside -Few drops of silver nitrate solution ,or any antibiotic into the e$_1$e

5- Identi fication -identification of I the newborn should be done for For early detection management To exclude imperforated anus

- To prevent cross infection

- To prevent strangulation of congenital hernia cord

-for detection abnormalities

-To prevent infection

-to prevent infection that may the baby have had contacted during labor

To differentiate babies

In male' we should exclude hypospadius,

- the cord constitute of one vem and two arteries.

It placed on crust or ankle , it contains I (mother name, baby sex , weight ,physician name and hospital number)

"6-BreAst Feeding -The infant should be given to the mother as early as possible, with in half an hour frem the birth I I 7-Complete recording. I	, 1 - To prevent hypo~lyc,mia ,promote mother infant bonding and stimulate milk secretion To decumbent the equipments, any instruments used ,the mother medical condition, the type of labor -Breast feeding has i major benefits for I both the mother	and her infant ,so the ! mother should know this benefits Any record should have the signatur~ ~f I ! the physician to free i your self from any responsibility

8-Return the equipments All equipments should be returned before leaving the delivery room	To free your responsibility It should be cleaned from any missed piece and sterilize for the next condition

,gar SCQre : ..

The apgar scoring is universally accepted method of recording ~ndition at birth, it is recorded at one and five minutes after birth, conducted for evaluation the infant condition at birth.

Sign	o point	] point	2 Points
I- Heart Rate	Absent	100 <	100 >
2- Respiratory	Absent	Weak clying	Good crying t~i I

efforts 3-Muscle Tone 4-Reflex or irritability No response of inserting catheter into nose	Some flexion -- Body pink extremities	Active flexion Vigorous crying or cough

'he total score = I 0 Normal =7-10 Sever
~ild asphyxia =4-7 asphyxia =0-3
'\

Neurological Assessment of The new born

=~

Reflex

_.

I-blinking reflex

2- papillary reflex 3-Rooting reflex

4-sucking reflex

6-Stepping reflex

walking reflex

r\ 7-Moro reflex

fI ')

I

t. r

~*A*

Arms are extended ,head is thrown back, fingers I are spread wide, arms are then brought back

convulsively with hands clenched, lower extremities are extended. Disappear by 6th month

Arm and leg are extended on the side that

the infant face and!

opposite leg and arm IS flexed

f----------.----- --- ---- ------ ------

Tactile stimulation Abdominal

Light flash Light flash

~---~

Light touch of finger on

check close to the mouth

Fingers or nipple inserted into mouth

Finger placed on palm of hand

or Infant supp0l1ed In an upright position with feet lightly touching a flat surface

Holding the infant with head supported then allow head to drop backward a short distance

Head while back

turned to one side the infant lies on his

I

Re~pons~ __ . . ._ '

Eye lid close

Pupil constricts

Head rotate

Toward stimulation

Rhythmic sucking accurse I

I

Infant finger close around

and g~~sp object _

Rhythmic stepping i

! movement ,disappear after

4 months

contract ,

-------.-.-------.-- ---- ----.----- -------- - --------'---- I

Immediate Baby Care (1) Student Name:

(2) Clinical Area:

(3) Date:

Steps	Student -- Experience			
(1) Suctioning ,: - Wash hands and wear gloves , -Receive newborn in warm towel and place under radiant heater -Place newborn in trendlenburg position -Suctioning from oropharyngeal canal -Administration of oxygen if needed -Avoid deep suctioning (2) General physical Examination -Complete 1 nlinute apgar score&5minute apgar score -Neurological examination by checking common reflexes of the newborn I - -Measuring vital signs pulse, respiration and temperatur$_y$ -Growth measurements include length, weight, head circunlference and chest circumference -Assess for any growth abnormalities Congenital tlefect in head, eyes, ears				I

Mouth, umbilicus, genital area and anus I (3) Cord Care: I - Wash hands before manipulating the cord -Use sterile clamps ,the first clamp is about 5em from the abdomen and the second clamp is placed 1 em from the first clamp -Press between the two clamps -Cut the cord by sterile scissor after the second clamp -Examine the cord structure -Paint the end of the stump with cotton with alcohol (4) Eye care: -Wash hands -Clean the eye lids with sterile moistened cotton baH from inside to outside -Few drops of silver nitrate solution or any antibiotic into the eye (5) Identification (6) Breast feeding (7) Complete recording and reporting (8) Replace the equipments (9) Hand washing			

Breast self Examination

Introduction:-

Monthly breast self-exams should always include: visual inspection (with and without a mirror) to note any changes in contour or texture; and manual inspection in standing and reclining positions to note any unusual lumps or thicknesses**.**

The best reason for performing monthly breast self examinations is the fact that 90 percent for all lumps and Just under half of all breast cancers are actually discovered by women or by their partners. As with all tumors, early detection leading to early treatment is the single most important factor in successful tumor removal and preservation of the breast. As in all types of cancer, early detection and treatment saves lives.

Definition:-

Is a method of finding abnormalities of the breast, for early detection of breast cancer? The method involves the women herself looking at and feeling each breast for possible lumps, or swelling.

Breast self examination is the only non invasive procedure that can be regularly performed between internal breast imaging and clinical breast examination (CBE**).**

The purpose of a Breast Self-Exam

- To learn the topography of the breasts.
- Knowing how the breasts normally feel will allow you to notice changes in the future.
- There is a three-pronged attack one can make in order to detect breast cancer:
    - **Breast Self-Examination:** Feeling your breasts.
    - **Mammography:** An X-ray of your breast.
    - **Clinical Breast Examination (CBE):** When an experienced doctor examines the breasts.

Time of performing Breast Self-Examination

Women older than 20 years should perform it on a regular monthly basis about 1 week after the onset of each menstrual period, when the breasts are typically not tender or swollen. BSE is most effective when it uses a dual approach incorporating both inspection and palpation. After menopause, BSE should be performed on the same day each month (chosen by the woman for ease of remembrance).

Time required: 15 minutes a month

Equipments:-

- A mirror which lets you see both breasts.
- A pillow for your head and shoulders.
- Privacy.

The Seven Ps methods:-

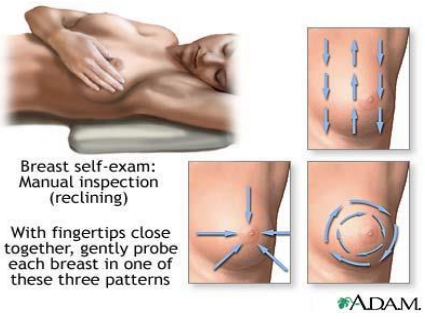
Similar method of self-examination is known as the seven' Ps of BSE:-

1. **Position:** Inspect breasts visually and palpate in the mirror with arms at various positions. Then perform the examination lying down, first with pillow under one shoulder, then with a pillow under the other shoulder, and finally lying flat.
2. **Perimeter:** Examine the entire breast, including the nipple, the axillary's tail that extends into the armpit, and nearby lymph nodes**.**

3. **Palpation:** palpate with the pads of the fingers, without lifting the fingers as they move across the breast **.**

.

4. **Pressure:** First palpate with light pressure, then palpate with moderate pressure, and finally palpate with firm pressure.
5. **pattern:** There are several examination patterns, and each woman should use the one which is most comfortable for her .the vertical strip pattern involves moving the fingers up and down over the breast .the pie-wedge pattern starts at the nipple and moves outward .the circular pattern involves moving fingers in concentric circles from the nipple outward .don't forget to palpate into the axilla.



6. Practice: practice the breast self exam and become familiar with the feel of the breast tissue, so you can recognize changes. A health care practitioner can provide feedback on your method**.**

1. **Plan:** know what to do if you suspect change in your breast tissue .know your family history of breast cancer .have mammography done as often as health care provider recommends.

Instructions before doing breast self- examination:-

a. Start checking your breasts when you are at 20 years or older.

b. Mark your calendar to help you remember to do BSE on a regular schedule. One easy way to remember to do BSE is to do the exam on the same day of each month.

c. Do your BSE one week after your monthly period. This is the time when your breasts may be the least swollen, lumpy, or tender.

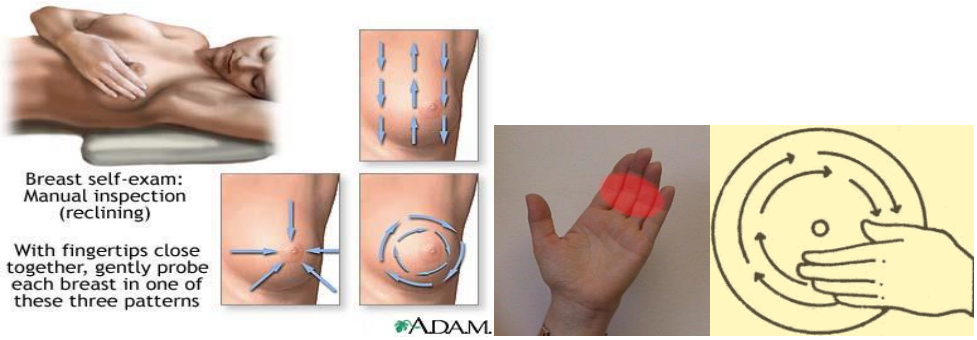
d. If you are pregnant or have gone through menopause (change of life), do a BSE on the same day of each month.

e. Use your fingertip pads to do the exam. Fingertip pads are the top parts of your fingers.

f. Use three types of pressure while you do your BSE. First, press lightly. Second, press with medium pressure to feel a little deeper into the breast. Last, use firm pressure to feel deep within your breast.

g. Use small circles to feel your breast tissue. Use your fingertip pads to make overlapping circles on your breast and armpits.

h. Examine your entire breast area using up and down lines**.** Talk to your caregiver and make your own personal decision about doing BSE. (Fig.1).



BSE involves the following:-

- **General Visual Exam (looking)**

1. Look for changes in symmetry, contour, shape, and overall texture of the breasts.
2. Look for dimpling, scaling, redness, sores, and enlarged pores in the skin.
3. Look for discharge, scaling, sores, puckering, and inversion of the nipples.

Change Color, Size or Texture

skin dimpling

nipple discharge

- **General Touch Exam (Palpation and feelling)**

Feel for unusual lumps, bumps, thickenings, and tender or enlarged lymph nodes in the breasts, under the arms, along the collarbone, and in center of chest between the breasts**.**

The Five Steps of a Breast Self-Exam

Breast Self-Exam - Step 1

Step 1: Begin by looking at your breasts in the mirror with your shoulders straight and your arms on your hips.

Here's what you should look for:

- Breasts that are their usual size, shape, and color
- Breasts that are evenly shaped without visible distortion or swelling

If you see any of the following changes, bring them to your doctor's attention:

- Dimpling, puckering, or bulging of the skin
- A nipple that has changed position or an inverted nipple (pushed inward instead of sticking out)
- Redness, soreness, rash, or swelling

Step 2: Now, raise your arms and look for the same changes.

Breast Self-Exam - Steps 2

and 3

Step 3: While you're at the mirror, look for any signs of fluid coming out of one or both nipples (this could be a watery, milky, or yellow fluid or blood).

Breast Self-Exam - Step 4

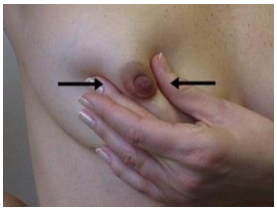
Step 4: Next, feel your breasts while lying down, using your right hand to feel your left breast and then your left hand to feel your right breast. Use a firm, smooth touch with the first few finger pads of your hand, keeping the fingers flat and together. Use a circular motion, about the size of a quarter.

Cover the entire breast from top to bottom, side to side — from your collarbone to the top of your abdomen, and from your armpit to your cleavage.

Follow a pattern to be sure that you cover the whole breast. You can begin at the nipple, moving in larger and larger circles until you reach the outer edge of the breast. You can also move your fingers up and down vertically, in rows, as if you were mowing a lawn. This up-and-down approach seems to work best for most women. Be sure to feel all the tissue from the front to the back of your breasts: for the skin and tissue just beneath, use light pressure; use medium pressure for tissue in the middle of your breasts; use firm pressure for the deep tissue in the back. When you've reached the deep tissue, you should be able to feel down to your ribcage.

Breast Self-Exam - Step 5

Step 5: Finally, feel your breasts while you are standing or sitting. Many women find that the easiest way to feel their breasts is when their skin is wet and slippery, so they like to do this step in the shower. Cover your entire breast, using the same hand movements described in Step 4.and press on nipple between fingers.



7. Tips for Doing Your BSE

1. Mark your calendar to remind yourself to do your BSE regularly. This is a good way to prevent worry if find a normal cyclic change.
2. Stay relaxed and breathe normally as you do your BSE. Becoming tense will produce some knots that you may mistake for something worrisome.

3. Report any changes or unusual pain to your doctor or nurse practitioner. Keep a log of changes, if that helps you remember.

4. Remember to have an annual clinical exam and a mammogram.

Examination of the placenta

Definition :

Is a flat organ measuring about 17.5- 20 cm in diameter, and 2.5 cm thickness, it weight about one-six of the body birth weight at full term and formed by the 12^{th} weeks of pregnancy.

OR:

is a complex organ that originate from trophoblastic layer of the fertilized ovum.

Mature placenta:

Placenta is completely formed and functioning 10-12 wks after fertilization

12-20 weeks, it weight more than the fetus because fetal organs are insufficiently developed to cope with metabolic process of nutrition.

Later in pregnancy: organs begin to function as liver, so (cytotrophoblast and syncytiotrophoblast) placenta gradually degenerate

The objectives:

1. Identify the size, shape, consistency and completeness of the placenta.
2. Determine the presence of accessory lobes, placental infarcts, haemorrhage and tumors.
3. Assess the umbilical cord for length, insertion, number of vessels, thrombosis, knots and the presence of wharton's jelly.
4. Evaluate the colour and the odour of the fetal membranes.

The clinical characteristics of normal placenta:

1. **Diameter**: 22cm at term.
2. **Thickness**: 2 to 2.5 cm.
3. **Weight** : 470 g
4. **The maternal surface**: dark red in colour, it should be divided in cotyledons. The structure should be complete, with no missing cotyledons.
5. **The fetal surface** of the placenta should be shiny, gray and translucent enough to see the colour of the underlying villous tissues.
6. **The umbilical cord**: length: 55 to 60 cm at term

Diameter: 2 to 2.5 cm.

The structure should have 2 arteries and one vein. normal cord contains Wharton's Jelly.

Functions of placenta:

1. **Respiration:**

No pulmonary exchange of gases can take place, so fetus must obtain oxygen and excrete carbon dioxide through placenta.

Oxygen from the mother's hemoglobin passes into fetal blood by simple diffusion, for co_2 also

2. **Nutrition:**

Fetus needs nutrition for growth and development. Such as protein, carbohydrates, calcium and phosphorus, iron and minerals, these nutrients are actively transferred from the maternal to the fetal blood through wall of villi.

3. **Storage:**

The placenta metabolizes glucose, store it in the form of glycogen and reconvert it into glucose as required. It also stores iron and fat-soluble vitamins.

4. **Excretion:**

The main substances excreted from the fetus is co2 , bilirubin excreted as red blood cells and very amount of urea and uric acid.

5. **Protection :**

Placenta provide limited barriers to infection, some substances as alcohol, chemical of smoking cigarettes ,

some virus as cytomegalovirus, and rubella are not filtered out causing congenital anomalies.

6. **Endocrine :** secretes hormones such as :

    - **Human chorionic gonadotrphin (HCG)**
    - **Oestrogen**
    - **Progestrone.**
    - **Human placental lactogen (HPL)**

The steps of placental examination:

Delivery of the placenta

1. As the placenta delivers, hold it in both hands and gently turn it until the membranes are twisted.
2. Slowly pull to complete the delivery. move membranes up and down until they deliver
3. If the membranes tear, gently examine the upper vagina and cervix wearing sterile gloves and use a sponge forceps to remove any remaining pieces of membrane.
4. Place the placenta in the receptacle provided (for later examination).

Examination the placenta:

5. Place the placenta in the palms of the hands, with maternal side facing upwards.
6. Check whether all of the lobules are present and fit together.
7. Hold the cord with one hand and allow the placenta and membranes to hang down.
8. Insert the hand inside the membranes, with fingers spread out.
9. Inspect the membranes for completeness.
10. If membranes or placenta is not complete, take immediate action.
11. Document the findings in the delivery room report.

IUD insertion

Definition:

Introduction of a specially device into the uterine cavity of a fertile woman who desires to prevent conception / pregnancy for a specific period of a time.

Purposes:

1- To avoid unwanted pregnancy.

2- To space pregnancies.

Contraindications:

Absolute:

1-suspected pregnancy.

2-pelvic inflammatory disease.

3- Vaginal bleeding of undiagnosed etiology.

4- Cancer of cervix, uterus or adnexae and other pelvic tumors.

5- Previous ectopic pregnancy.

Relative:

1- Anemia.

2- Menorrhagia.

3- History of pelvic inflammatory disease.

4- Purulent cervical discharge.

5- Distortions of the uterine cavity due to congenital malformations, fibroids.

Advantages of IUCD:

1- Simplicity- no complex procedures are involved in insertion.

2- Hospitalization is not required.

3- IUCD stays in place as long as required (different types of IUCDs) have varying durations recommended for replacement depending on the amount of impregnated medication.

4- Inexpensive.

5- Contraceptive effect is reversible by removal of IUCD.

6- Free from systemic metabolic side effects associated with hormonal pills.

7- There is no need for continual motivation

Articles:

1- IUCD pre- sterilized insertion package.

2- Sterile tray containing.

- Vaginal speculum(cuscos)
- Vulsellum.
- Uterine sound
- Sponge holding forceps.
- Bowel containing cotton swab.
- Sterile gloves.
- Scissors.
- Disinfectant solution.
- Kidney tray.

Procedure:

1- Explain the procedure including **advantages,** dis advantages, effectiveness and side effects of IUCD.

2- Arrange the equipment's on examination table.

3- Instruct woman to empty her bladder.

4- Position woman on her back with knees flexed and buttocks at the edge of the table.

5- Provide privacy and drape patient appropriately.

6- Wash hands and don sterile gloves.

7- Load IUCD inside applicator as per manufacturer's instruction.

8- Inspect external genitalia, urethra and vagina for signs of infection, lesions or discharge.

9- Explain to the women that there will be slight discomfort during speculum insertion.

10- Insert the speculum gently and observe the cervix for signs of infection and erosion.

11- Clean the external cervical os with an antiseptic soaked swab by using sponge holding forceps.

12- Instruct the patient that there will be discomfort (pinching pain) when applying the vulsellum. Apply vulsellum at the 120 clock position on the cervix; grasp the lip of the cervix.

13- Pass the uterine sound into the cervical canal and insert carefully into the uterine cavity while pulling steadily downward and outward on the vulsellum. (a slight resistance indicates that the top of the uterine sound has reached the fundus), and remove the uterine sound.

14- Measure the length of the device to be inserted into the uterine cavity. The depth of gauge on the inserter-tube is used to mark the depth of the uterus. Pull the loaded inserter tube gently until the distance between the top of the folded "T" and edge of the depth gauge closest to the "T" is equal to the depth of the uterus as measured on uterine sound.

15- Carefully peel the clean plastic cover of the package away from the white packing. Lift the loaded inserter keeping it horizontal os that neither the "T" nor the white rod falls out.be careful not to push the white rod towards the "T"

16- Grasp the vulsellum and pull firmly downwards and outwards to align the uterine cavity and cervical canal with the vaginal canal.

17- Gently introduce the loaded inserter assembly through the cervical canal. keeping the depth gauge into a horizontal position

18- According to the position and direction of the uterine cavity gently and carefully advance the loaded inserter assembly until the depth gauge comes in contact with the cervix or resistance of the uterine fundus is felt.

19- Hold the vulsellum and the white rod in one hand.

20- Gently and carefully push the inserter tube upwards, towards resistance.

21- Remove the while rod while holding the inserter tube stationary.

22- Gently and slowly withdraw the inserter tube from the cervical canal and check for the strings protruding from the uterus .cut the strings shorter so that they protrude only 3 cm outside the cervix.

23- Remove the vulsellum. If there is excessive bleeding from the vulsellum site, press a sterile cotton ball to the site using forceps until the bleeding stops.

24- Remove speculum and drapes.

25- Instruct patient to stay in bed for some time.

26- Wash perineum with soap and water speculum and drapes.

27- Remove gloves and discard.

28- Instruct the woman on follow-up measures

29- :

1-to confirm presence of IUCD periodically by feeling the presence of threads in vagina.

2-instruct patient to visit clinic whenever she experiences the warning signs of problems related to IUCD such as:

PAINS

P: delayed periods, spotting, bleeding or missing period.

A: abnormal pain or pain during coitus.

I: infection, any vaginal discharge.

N: not feeling well, fever, or pelvic pain.

S: strings in vagina (feeling the device in vagina).

Side effects and complications:

1- Excessive bleeding.
2- Low back pain during menstruation.
3- Pain during menstruation.
4- Pelvic infection.
5- Uterine perforation.
6- Ectopic pregnancy.
7- Expulsion of device.

The fundus and lochia examination

Procedure:

1- Hand washing

2- Prepare the necessary equipment and taken to the bed side table (clean gloves, sterile pad, and antiseptic solution)

3- Great the woman, and explain the procedure to obtain her consent.

4-ask the woman to empty her bladder before the procedure.

5- Maintain privacy through the procedure.

A- Fundus and Lochia Assessment Steps.

6- Wash hands and wear the clean examination gloves.

7-ask the woman to lie on her back with her knees slightly bent.

8- do fundal massage using one hand and the other gloved hand lowered the perineal pad to assess the lochia flow in the bad.

9- Ask the woman since how many hours she changed her perineal pad.

10- Assess the fundal level, position, size and consistency first then massage as needed.

11- Assess the lochia flow in the bad during massage.

12- Support the uterus by cupping one hand against the lower uterine segment (just above the symphysis pubis)

13- Measure by finger breadth how far the fundus from the umbilicus.

14- Use anew-perineal pad to cover the perineum after perineal care.

B- Post procedure tasks.

12- Remove and dispose gloves according to procedure.

13- inform the woman about the findings and document the procedure accurately.

Pap smear

Procedure

Nursing action	Rational
1- wash hands	
2- prepare equipment bedside exam table	
3- explain procedure to women	To relive anxiety
4- instruct mother to empty bladder	To relieve discomfort
5- Assist woman into lithotomy position	
6- with gloved hands inspect , palpate the external genitalia.	For any abnormality
7- insert sterile speculum into the vagina: a- open the introitus. b- oblique insertion of speculum. c-final insertion of speculum. d- opening the blades of speculum	- Prevent tissue injury

8- excess mucus is removed from the cervix with a dry cotton	- The removal of excess mucus allows for a more accurate specimen sample.
9- a saline moistened Dacron applicator is introduced into the endocervical canal & rotated 360 c rolled on slider.	- Aspecimen of cells

Perineal care:

The perineum is the part of the woman's body between her legs, including the vagina (birth canal) and rectum. after having a baby , woman needs to give this area special attention. postpartum perineal care includes all the things need to do to make the area feel better, heal properly , and avoid infection , will need to do this for 1 to 3 weeks.

Causes:

The perineum is severely stressed as a baby is pushed through the vagina (birth canal) .Also, the doctor may have made a small opening called episiotomy so that the vagina wouldn't tear when the baby was coming out. Although this is sewn back together, it will take time to heal.

Objectives:

1- To clean the vulva and perineum.

2- To promote healing, prevent infection relieve edema and soreness.

3- To eliminate odour and make woman

4- comfortable.

5- To stimulate micturition.

6- To observe condition of perineum.

Indications:

1- Before vaginal examination and catheterization.

2- Following shaving.

3- On admission and at six hour interval during labour as well as immediately before and after delivery.

4- After urination and or defecation in post-partum period.

5- Before dressing on episiotomy wound.

6- Pre and post-operative of perineal and vaginal surgery.

7- In case of leucorrhea.

Signs and symptoms which indicate perineal care.

1. There will be pain and swelling around the vagina because of stretching when the baby was born.
2. You will also notice a discharge from the vagina.at first it will be bloody, and then it will turn pink. later it will turn yellow and then go away.
3. Woman may have a tear in her vagina.

Equipment:

1. A try with the following:
    - Perineal bowel with sterile cotton sponges(kidney basin).
    - Warm sterile solution (anti-septic solution).
    - Sterile perineal pad.
    - Sterile tissue forceps or gloves.
    - A clean kidney tray or paper bag for waste.
2. Bedpan and mackintosh.
3. Clean and dry towel.

Procedure:

1- Wash hands.

2- Prepare equipment and take to bedside.

3- Explain the procedure to woman and screen the bed.

4- Drape the woman cover and perineal area only exposed.

5- Put mackintosh and towel under the woman and place the bed pan with the towel (lithotomy position).

6- Remove the soiled perineal pad from above to downward and wrap in paper and place in paper bag or kidney basin.

7- With forceps and cotton sponges clean as follows:

- From symphysis pubis upward to the umbilicus.
- The far thigh then , the near thigh.
- The far labia from above downward. then the near labia.

- Center from clitoris downward to perineum and rectum
- Pour the rest of solution over the vulva and rectum.
- Dry and clean genitalia with cotton sponges by the same technique .
- Remove the bed pan and instruct the women turn on her side & dry her buttocks with cotton.
- Apply sterile perineal pad.
- Rearrange bed & clothes to make women more comfortable.
- **Conclusion of Procedure:**
- Remove soiled equipment
- Remove gloves
- Position patient for comfort and warmth
- Wash hands

8-

Charting.

- Record the time of procedure.
- Temperature & type of solution.
- Observation of the vulva and perineum.
- Report abnormal observation and woman's complains.

Bishop score, also Bishop's score, also known as cervix score is a pre-labor scoring system to assist in predicting whether induction of labor will be required.[1] It has also been used to assess the odds of spontaneous preterm delivery.[2] The Bishop Score was developed by Dr. Edward Bishop and was published in August 1964.[1][3]

1 Components

The total score is achieved by assessing the following five components on vaginal examination:

- Cervical dilation
- Cervical effacement
- Cervical consistency
- Cervical position
- Fetal station

The Bishop score grades patients who would be most likely to achieve a successful induction. The duration of labor is inversely correlated with the Bishop score; a score that exceeds 8 describes the patient most likely to achieve a successful vaginal birth. Bishop scores of less than 6 usually require that a cervical ripening method be used before other methods.

They can be remembered with the mnemonic: Call PEDS For Parturition = Cervical Position, Effacement, Dilation, Softness; Fetal Station.

2 Scoring

Each component is given a score of 0 to 2 or 0 to 3. The highest possible score is 13.

3 Interpretation

A score of 5 or less suggests that labour is unlikely to start without induction. A score of 9 or more indicates that labour will most likely commence spontaneously.[4]

A low Bishop's score often indicates that induction is unlikely to be successful.[5] Some sources indicate that only a score of 8 or greater is reliably predictive of a successful induction.

Modified Bishop score

According to the Modified Bishop's pre-induction cervical scoring system, effacement has been replaced by cervical length in cm, with scores as follows: 0 for >3 cm, 1 for >2 cm, 2 for >1 cm, 3 for >0 cm. [6]

Another modification for the Bishop's score is the modi- fiers. Points are added or subtracted according to special circumstances as follows:

- One point is added for:
    - 1. Existence of pre-eclampsia
    - 2. Every previous vaginal delivery
- One point is subtracted for:
    - 1. Postdate pregnancy
    - 2. Nulliparity (no previous vaginal deliveries)
- 3. PPROM; preterm premature (prelabor) rupture of membranes.

VAGINAL EXAMINATION

Indications

1. On admission for baseline data
2. Upon rupture of the membranes in labour - to rule out cord prolapse
3. Before analgesia - to determine progress
4. Before pushing
5. Upon observing or auscultating non-reassuring fetal heart rate
6. Every 2-4 hours to determine labour progress

Contraindication

1. Undiagnosed vaginal bleeding
2. Placenta previa

Minimize Number of Exams

1. PROM - to prevent ascending infection (speculum examination preferred)*
2. Active herpes -to prevent ascending infection

** An initial digital examination may be performed after the speculum examination for baseline data*

Assessment Criteria

1. Cervix - effacement (cervical length measurement, % taken up), dilatation (cm), consistency, position
2. Presenting part (vertex, breech, compound presentation) position
3. Status of the membranes

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chapter. We recommend that this chapter be used as a reference document at other facilities. We accept no responsibility for interpretation of the information or results of decisions made based on the information in the cpter(s)

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PERINATAL MANUAL CHAPTER 5 - DIGITAL VAGINAL EXAMINATION

4. Station (relation of presenting part to ischial spines)

A vaginal exam is used in conjunction with or preceded by abdominal palpation

The Bishops score (pre-induction cervical scoring) assesses dilatation, effacement, consistency, and position of the cervix, and the station of the presenting part. For a further discussion of this assessment refer to Chapter 20, Induction of Labour.

Method

position the woman in a lateral, (or with the head of the bed slightly elevated) rather than supine, position to prevent supine hypotension and fetal bradycardia

- use sterile lubricant
- encourage the woman to practice her relaxation exercises
- keep her informed of what you are doing and your findings
- perform examination between contractions
- after completing the assessment, provide perineal care and check fetal heart
- chart findings and plot progress on the partogram
- notify physician/midwife of progress (dilatation/descent)

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