PARTOGRAPH

Dr Sheela V. Mane
Chairperson-Safe Motherhood Committee, FOGSI
Preventing Prolonged Labour: a practical guide

The Partograph
Part II:
User's Manual

Practical Guide
Maternal Mortality

- Half a million women lose their lives every year because of pregnancy.
- Obstructed labour and ruptured uterus contribute up to 70% of maternal mortality.
- Early detection of abnormal progress & prevention of prolonged labour can significantly reduce MM.
Objective of this EOC drill

- To teach the use of Partograph in the management of labour

(Not to teach the principles and physiology of labour)
By the end of the program the participant should be able to:

- Know when to start a Partograph
- Understand and complete all parts of the Partograph
- Describe all abnormalities in labour
- Know how to recognize prolonged labour on the Partograph
- Know when to transfer a woman in labour
- Have some knowledge of possible management options
Partograph

- Graphic recording of the progress of labour
- Recording of salient conditions of the mother and fetus

**Uses**

- To detect labour that is not progressing normally
- To indicate when augmentation of labour is appropriate
- To recognize CPD long before obstruction occurs
Partograph

- Increases the quality of all observations on the mother and fetus in labour
- Serves as an “Early warning system”
- Assists in early decision on transfer, augmentation, termination of labour
<table>
<thead>
<tr>
<th>Time</th>
<th>Temp</th>
<th>Pulse</th>
<th>BP</th>
<th>Drugs given and IV fluids</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td></td>
<td>150</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>170</td>
<td></td>
<td>140</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td></td>
<td>130</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td>120</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>140</td>
<td></td>
<td>110</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td></td>
<td>100</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td></td>
<td>90</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td></td>
<td>80</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

**Urine**
- protein
- acetone
- volume
Who should *not* have a Partograph

- Women with problems which are identified before labour starts or during labour which need special attention
Observations charted on the Partograph

The Progress of labour
- Cervical dilatation
- Descent of fetal head
- Uterine contractions – duration, frequency

Fetal condition
- Fetal heart rate
- Membranes and liquor
- Moulding of the fetal skull

Maternal condition
- Pulse/ BP / Temp
- Urine – volume, acetone, protein
- Drugs & IV Fluids
- Oxytocin regime
Starting a Partograph

A partograph should be started only when a woman is in active phase of labour

- Contractions must be 1 or more in 10mins, each lasting for 20secs or more
- Cervical dilatation must be 4cms or more
- In the centre of Partograph is a Graph. Along the left side are numbers 0 -10 against squares. Each square represents 1cm dilatation.
- Along the bottom of the graph are numbers 0-24. Each square represents 1 hour.
- The dilatation of Cx is plotted with an ‘X’. Vaginal examinations are done at admission and once in 4 hours.
In the centre of Partograph is a Graph. Along the left side are numbers 0-10 against squares. Each square represents 1cm dilatation. Along the bottom of the graph are numbers 0-24. Each square represents 1 hour. The dilatation of Cx is plotted with an “X”. Vaginal examinations are done at admission and once in 4 hours.
Descent of fetal head

- It is measured in terms of fifths above the pelvic brim

<table>
<thead>
<tr>
<th>5/5</th>
<th>4/5</th>
<th>3/5</th>
<th>2/5</th>
<th>1/5</th>
<th>0/5</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Diagram showing descent of fetal head" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **5/5:** Sinciput completely above pelvic brim
- **4/5:** Sinciput high, occiput easily felt
- **3/5:** Sinciput felt, occiput just felt
- **2/5:** Sinciput felt, occiput not felt
- **1/5:** None of head palpable
- **0/5:** Pelvic cavity
The width of the 5 fingers is a guide to the expression in fifths of the head above the brim.
A head that is mobile above the brim will accommodate the full width of 5 fingers.
As the head descends, the portion of the head remaining above the brim will be represented by fewer fingers.
It is generally accepted that the head is engaged when the portion of the head above the brim is represented by 2 fingers are less
Plotting the Descent of the Head

- On the left hand side of the graph is the word “descent’ with lines going from 5 – 0
- Descent is plotted with an “O’ on the Partograph
Uterine Contractions

Observations are every half hour in active phase

- Frequency - Number of contractions in a 10 minutes period
- Duration – Measured in seconds from the time the contraction sets in to the time the contraction passes off
Recording Uterine Contractions

On the Partograph below the time line, there are 5 blank squares going across the length of the graph. Each square represents 1 contraction.
Plotting Contractions on the Partograph
Fetal Heart Rate

Listen
- Patient in left lateral position
- Just after the contraction has passed its strongest phase
- For 1 full minute, if abnormal every 15 mins
- If abnormal over 3 observations, take action

Record
- At the top of the Partograph
- Every half hour
# Membranes & Liquor

<table>
<thead>
<tr>
<th>State of Liquor</th>
<th>Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membranes intact</td>
<td>I</td>
</tr>
<tr>
<td>Clear</td>
<td>C</td>
</tr>
<tr>
<td>Meconium</td>
<td>M</td>
</tr>
<tr>
<td>Absent</td>
<td>A</td>
</tr>
<tr>
<td>Blood Stained</td>
<td>B</td>
</tr>
</tbody>
</table>

![Graph with fetal heart rate and oxymetron data]
Fetal condition

State of Moulding

- Bones are separated & sutures felt: 0
- Bones are just touching each other: 1+
- Bones are overlapping: 2+
- Bones are overlapping severely: 3+

Record:

- SVD at 14:20
- Live female infant
- Wt. 2,850 g
Maternal Condition

Recorded at the foot of the Partograph

**Oxytocin:**

**Drugs:**

**Pulse:** every half hour

**BP:** every 4 hrs or more frequently

**Temp:** every 4 hrs or more frequently

**Urine:** Protein

Acetone

Volume
Points to Remember

- When the woman comes in the active phase of labour, recording of cervical dilatation starts on the alert line.
- When progress of labour is normal, plotting of cervical dilatation remains on the alert line or to the left of it.
Abnormal Progress of Labour
Prolonged Active Phase

- In the active phase, plotting of cervical dilatation will remain on the left of or on the alert line.
- If it moves to the right of the alert line, labour may be prolonged.
- Transfer if facility for emergencies is not available.
- Transfer allows adequate time for assessment for intervention when she reaches the action line.
Prolonged active phase of labour
At the Action Line

- It is 4 hours to the right of Alert line
- Assess the cause of slow progress and take action
- Action should be taken in a place with facility for dealing with obstetric emergencies is available
Remember

WARNING

Transfer from hospital

Reaching the action line means possible danger on further management

(usually by obstetrician or medical officer)
Management of Labour

WHO Protocol

MATERNAL HEALTH AND SAFE MOTHERHOOD PROGRAMME
DIVISION OF FAMILY HEALTH
WORLD HEALTH ORGANIZATION
GENEVA
Normal Latent and Active Phases

Latent phase is less than 8 hrs and active phase remains to the left of or on the alert line

- Do not augment with oxytocin or intervene unless complications develop
- ARM may be done at any time in the active phase
Between Alert and Action lines

**In a Health Centre:**
- Transfer to hospital with facilities for Cesarean section, unless Cervix is almost fully dilated
- ARM may be performed if membranes are still intact and observe labour for a short period before transfer

**In Hospital:**
- Perform ARM if membranes are intact and continue routine observations
At or Beyond Active Phase  Action Line

- Full medical assessment
- Consider IV infusion/bladder catheterization/analgesia

**Options:**

- Delivery if fetal distress or obstructed labour
- Oxytocin augmentation if no contraindication
- Supportive therapy (only if satisfactory progress is now established and dilatation could be anticipated at 1cm/hr or faster)
Dilatation that reaches the Action Line

Alert

Action

Caesarean section at 17:30
Live male infant
Wt. 4,603 g
Inadequate uterine contractions corrected with oxytocin.
CONTRIBUTORS

- Dr Sheela V. Mane
- Dr Susheela Rani
THANK YOU