





**KING GEORGE'S MEDICAL UNIVERSITY**

**KGMU COLLEGE OF NURSING**

**DEMONSTRATION ON : PARTOGRAPH**

**SUBJECT : OBSTETRICS AND GYNECOLOGY**

**PRESENTED BY –MS. SUSHMITA YADAV**

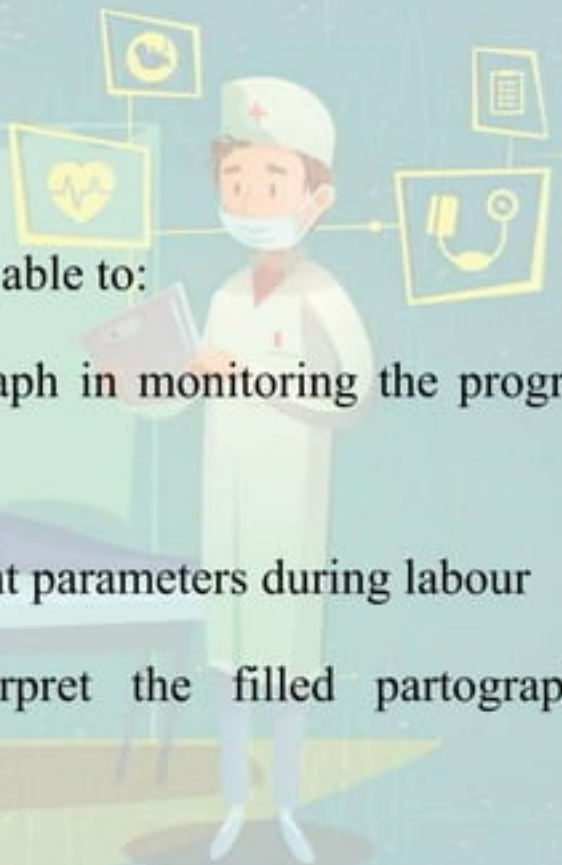
**M.SC. (N) 1<sup>ST</sup> YEAR**



## LEARNING OBJECTIVES

By the end of the session, the learners will be able to:

- Describe the significance of using partograph in monitoring the progress of labour, fetal and maternal condition
- Describe the frequency of recording different parameters during labour
- Plot the case study findings and interpret the filled partograph for decision making





## Why monitoring is required ?

LABOUR ROOM



The intrapartum period is probably the most dangerous and traumatic period – a time associated with a high mortality and morbidity for both mother and child.



## COMPLICATION OF PROLONGED LABOUR

### • MATERNAL

- ☐ Maternal exhaustion
- ☐ Increased incidence of CS
- ☐ Birth canal injuries if forceps is used
- ☐ Risk of rupture uterus
- ☐ PPH, Puerperal sepsis

### • FETAL

- ☐ Fetal distress,  
Chorioamnionitis,  
neonatal sepsis.
- ☐ ICH- if forceps is used.



The partograph is a graphic recording of the progress of labour and the condition of the mother and foetus. It is a tool which helps assess the need for action and recognises the need for referral at the appropriate time. This facilitates timely referral to save the life of the mother and foetus.





## **PARTOGRAPH (CONT..)**

- Partograph is the most important tool for health workers at any level to assess the progress of labour and take appropriate actions
- Graphic recording of the progress of labor and condition of mother and fetus
- Labor record, thus reduces paper work
- Partogrph is applicable for the active phase of first stage of labour i.e., From cervical dilatation  $\geq 4\text{cm}$  to full dilatation of cervix



## ADVANTAGES

1. To assess labor at glance, early detection of abnormal progress of labor.
2. Prevention of prolonged labor.
3. Recognition of CPD long before obstructed labor
4. Can allow time & discussion of further management of labor (Augmentation or termination of labor).
5. Make observation & recording of Feto-maternal condition more objectively.





## **ADVANTAGES (CONT...)**

6. Early recognition of Feto-maternal problems.
7. Highly effective in reducing complications from prolonged labor for the mother (postpartum hemorrhage, sepsis, uterine rupture and its sequelae) and for the newborn (death, anoxia, infections, etc.)
8. Reduce incidence of CS rate.
9. Facilitates handover procedure.



## DISADVANTAGES

- Assumes that all women progress at same rate.
- May influence intervention rate.
- Clinical findings have subjective variations.
- Lack of knowledge.
- Non availability of printed partographs.
- Duplication of recording.

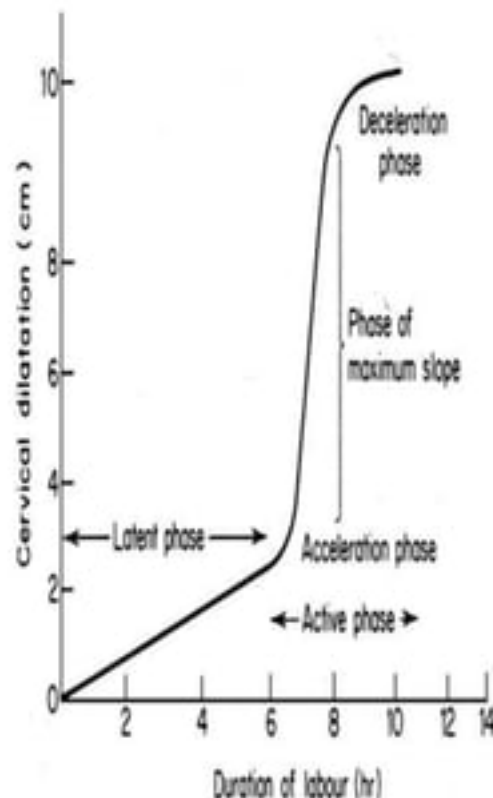


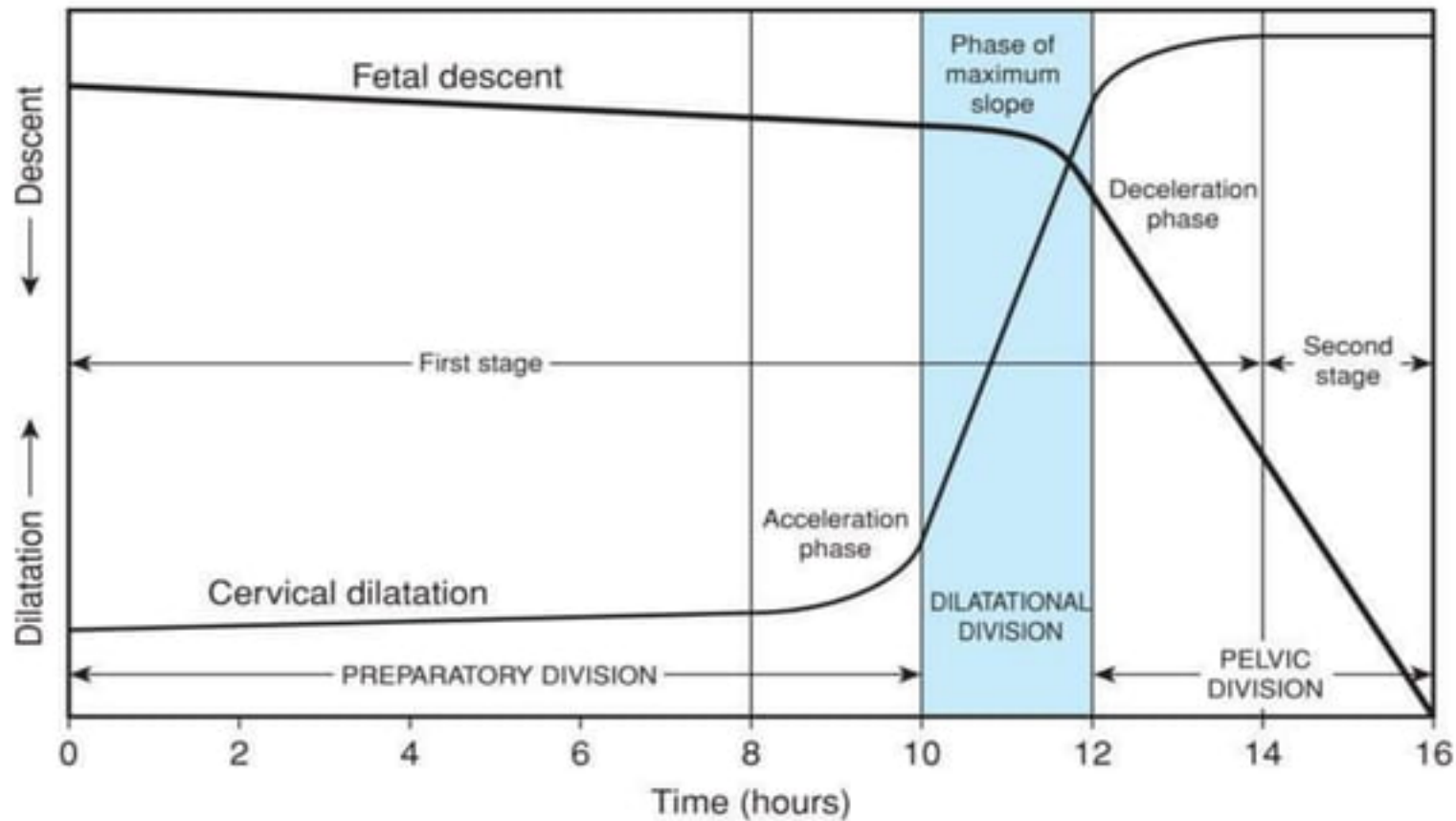


## HISTORY

### • EMANUEL FRIEDMAN'S PARTOGRAM – 1954

- ✓ Based on observations of cervical dilatation and fetal station against time elapsed in hours from onset of labor.
- ✓ The time of onset of labor was based on the patient's subjective perception of her contractility.
- ✓ Plotting cervical dilatation against time yielded the typical Sigmoid or 'S' shaped curve, and station against time gave rise to the Hyperbolic curve.

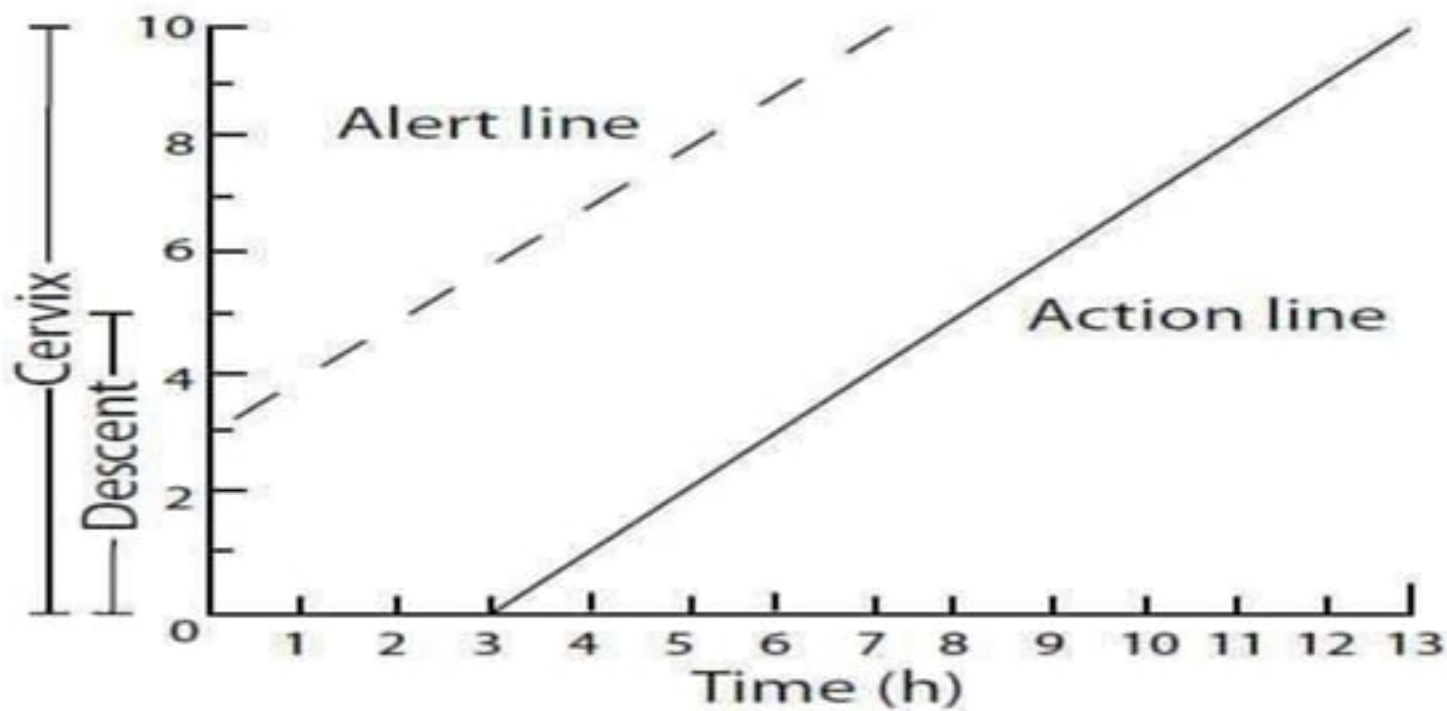






## PHILPOTT AND CASTLE - 1972

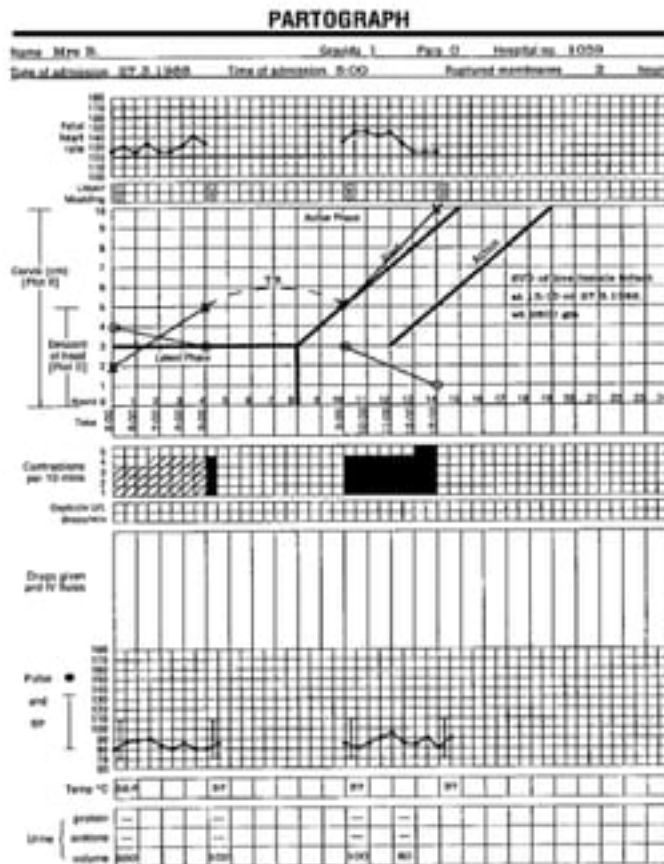
- Introduced the concept of "ALERT" & "ACTION" lines.
- ALERT LINE – represent the mean rate of slowest progress of labor (1cm/hr) starting at zero time i.e. time of admission.
- ACTION LINE - drawn 4 hrs. to the right of the alert line and parallel to it. If the progress crossed the alert line, appropriate action should be taken within 4 hrs.





## THE WHO PARTOGRAM

- It has been modified in 2000 to make it simpler and easier to use.
- The latent phase has been removed and plotting on the Partogram begins in the active phase when the cervix is 4 cms dilated.





## COMPONENTS OF PARTOGRAPH

- Mother information
- Fetal well-being
  - Fetal heart rate
  - Character of liquor
  - Moulding

Labour progress

- Dilatation
- Descent

Uterine contraction

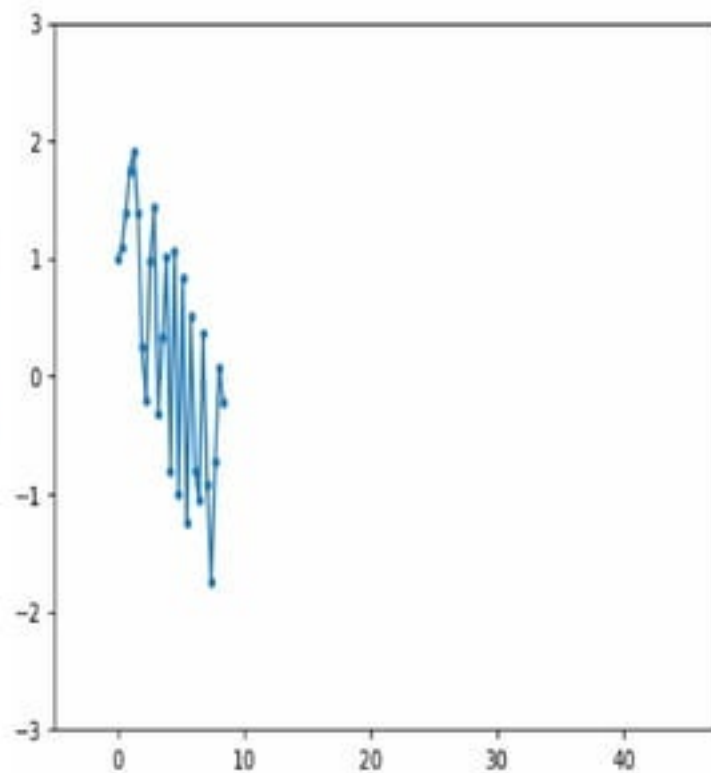
Medications-Oxytocin

Pain relief (e.g. pethidine)

- Maternal well-being
  - BP, Pulse, Temperature
- Urine- albumin, glucose, acetone
  - Urine output



## PLOTTING A PARTOGRAPH





## IDENTIFICATION DATA

**NAME**

**AGE**

**PARITY**

### THE SIMPLIFIED PARTOGRAPH

#### IDENTIFICATION DATA

Name: \_\_\_\_\_ Wt: \_\_\_\_\_ Age: \_\_\_\_\_ Parity: \_\_\_\_\_ Reg. No.: \_\_\_\_\_

Date & Time of Admission: \_\_\_\_\_ Date & Time of ROM: \_\_\_\_\_



**DATE AND TIME OF  
ADMISSION**

**REGISTRATION  
NUMBER**

**TIME OF RUPTURE OF MEMBRANES**



# FETAL CONDITION

Count fetal heart rate every 30 minutes

Count for one full minute, immediately following a uterine contraction

Fetal distress: FHR <120 beats/minute or >160 beats/minute

## THE SIMPLIFIED PARTOGRAPH

### IDENTIFICATION DATA

Name: W/o: Age: Parity: Reg. No.:

Date & Time of Admission Date & Time of ROM:

#### A) Foetal Condition





**RECORD STATUS OF MEMBRANES AND AMNIOTIC  
FLUID COLOR EVERY HALF HOURLY IN  
PARTOGRAPH AS FOLLOWS:**

- Membranes intact (mark 'I')
- Blood stained (mark 'B')
- Clear liquor (mark 'C')
- Meconium stained liquor (mark 'M')





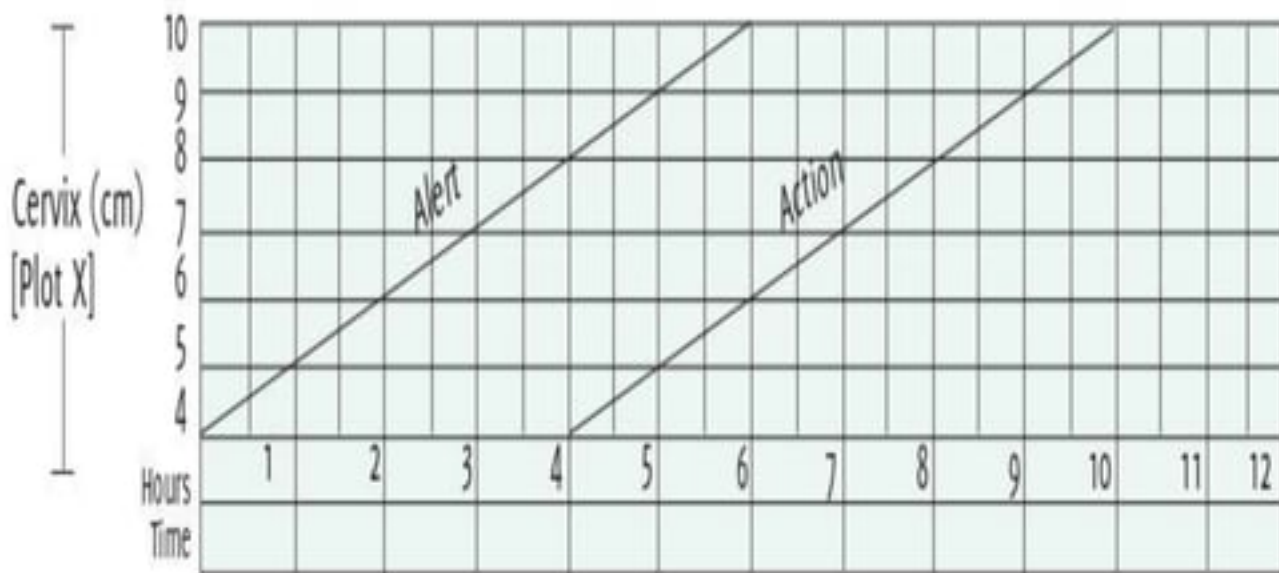
## LABOR

- Begin plotting on the partograph only when active labour starts. Active labour starts when the cervical dilatation is 4 cm or more and the woman is having at least two good contractions every 10 minutes.
- Record the cervical dilatation in centimeters every 4 hours.





## B) Labour





## **LABOR (CONT..)**



- In this phase, cervical dilatation progresses by approximately 1 cm per hour and is often quicker in multigravida
- Plot the first recording of cervical dilatation on the Alert line. Write the time accordingly in the corresponding row for time. After four hours, conduct a vaginal examination and plot the cervical dilatation in centimeters on the graph.



## LABOR (CONT..)

- If the Alert line is crossed (the plotting moves to the right of the Alert line), it Plot the first recording of cervical dilatation on the Alert line it indicates prolonged/obstructed labour and you should be alert that something is abnormal with the labour.





## LABOR (CONT...)

- Note the time when the Alert line is crossed. The woman needs to be referred urgently to the FRU. Please remember to send the partograph along.
- Crossing of the Action line (the plotting moves to the right of the Action line) indicates the need for intervention. There is a difference of four hours between the Alert line and the Action line. By the time the Action line is crossed, the woman should ideally have reached the FRU for the appropriate intervention. Refer as soon as Alert line is crossed and do not wait for referral till the Action line is crossed.



## Labor (cont..)

- Chart the contractions every half an hour; count the number of contractions over 10 minutes and note their duration in seconds.
- Record the number of good uterine contractions (lasting more than 20 seconds) in 10 minutes every half an hour and accordingly, blacken the boxes on the partograph.





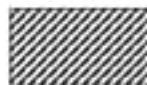


## CHART THE CONTRACTIONS EVERY HALF AN HOUR

Number of contractions in 10 mins

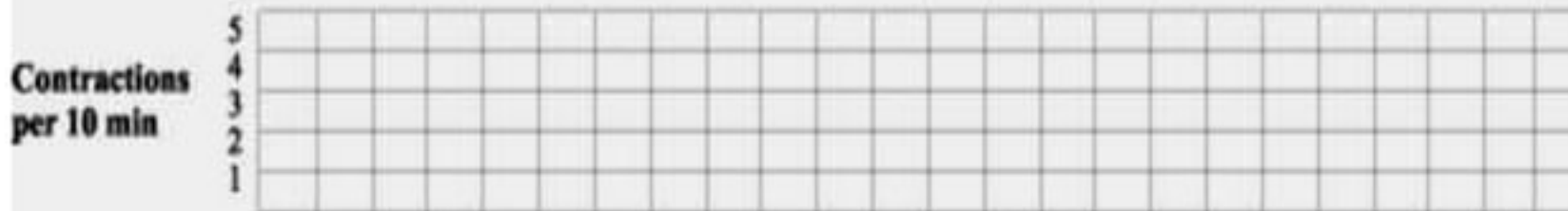
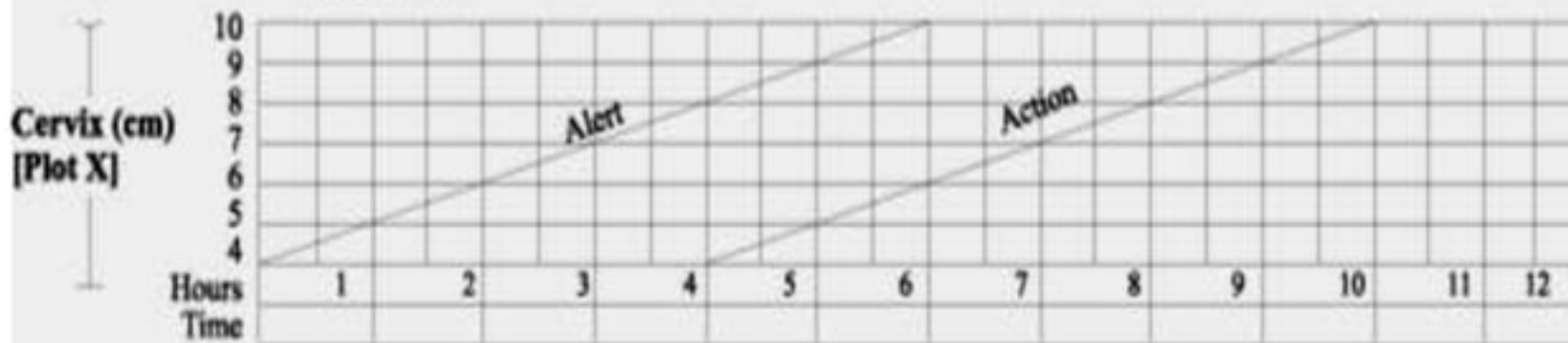
Duration in seconds.

- Less than 20 seconds
- Between 20 and 40 seconds
- More than 40 seconds





## B) Labour





## MATERNAL CONDITION

- Record the maternal pulse on the graph every half an hour and mark with a dot (.).
- Record the woman's blood pressure on the graph every four hours, using a vertical arrow ( ) with the upper end of the arrow signifying the systolic blood pressure and the lower end indicating the diastolic blood pressure.
- Record the temperature every four hours and note it on the temperature graph.



## **INTERVENTIONS**

- Mention any drug that has been administered during labour, including the dosage, route and time of administration.
- Also include the food items and liquids consumed by the woman during labour.



### C) Interventions

Drugs and  
IV fluids given

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### D) Maternal Condition

Pulse  
and  
BP

180																	
170																	
160																	
150																	
140																	
130																	
120																	
110																	
100																	
90																	
80																	
70																	
60																	

Temp (°C)

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## AIMS AND OBJECTIVES OF MAINTAINING A PARTOGRAM

- Early detection of abnormal progress of labour
- Early recognition of cephalopelvic disproportion
- To prevent or prevention of prolonged labour
- Early recognition of maternal or foetal problems



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- Help in early decision for transfer, augmentation or termination of labour  
crease the quality and regularity of all observations of mother and foetus
- Highly effective in reducing complications from prolonged labour for the mother (postpartum haemorrhage, sepsis, uterine rupture and its sequelae) and for the newborn (death, anoxia, infections, etc)
- Detection of precipitate labour
- Reduce incidence of Caesarean sections
- Facilitates handover procedure
- Medicolegal





# SUMMARY



## ASSIGNMENT





Radha (wife of Gangaram), 26 years of age, third gravida, was admitted at 5:00 am on 11 June 2009 with the complaint of labour pains since 2:00 am. Her membranes had ruptured at 4:00 am. She has two children of the ages of 5 and 2 years. On admission, her cervix was 2 cm dilated.

Plot the following findings on the partograph:

At 09:00 am: • The cervix is dilated 5 cm.

- She had 3 contractions in 10 minutes, each lasting 20–40 seconds.
- The FHR is 120 beats per minute.
- The membranes have ruptured and the amniotic fluid is clear.
- Her BP is 120/70 mmHg.
- Her temperature is 36.8°C.
- Her pulse is 80 per minute.

9:30 am: FHR 120, contractions 3/10 each 30 seconds, pulse 80/minute, amniotic fluid clear

10:00 am: FHR 136, contractions 3/10 each 35 seconds, pulse 80/minute, amniotic fluid clear

10:30 am: FHR 140, contractions 3/10 each 40 seconds, pulse 88/minute, amniotic fluid clear

11:00 am: FHR 130, contractions 3/10 each 40 seconds, pulse 88/minute, amniotic fluid clear

11:30 am: FHR 136, contractions 4/10 each 45 seconds, pulse 84/minute, amniotic fluid clear

12:00 noon: FHR 140, contractions 4/10 each 45 seconds, pulse 88/minute, amniotic fluid clear

12:30 pm: FHR 130, contractions 4/10 each 50 seconds, pulse 88/minute, amniotic fluid clear

1:00 pm: FHR 140, contractions 4/10 each 55 seconds, pulse 90/minute, temp. 37°C, BP 100/70, amniotic fluid clear

At 1:00 pm:

- Cervix fully dilated
- Amniotic fluid clear and BP 100/70 mmHg

**1:20 pm: Spontaneous birth of a live female infant weighing 2.85 kg.**



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THANK  
you! 🌟