PartoMa Case Stories for problem-based learning

Related to partograph use and the PartoMa Pocket Guide 2.0

The PartoMa case stories are based on real-life stories at Mnazi Mmoja Referral Hospital in East Africa. They are modified by Nanna Maaløe, and given new names. Each case is reviewed by two internal medical doctors (Tarek Meguid and Natasha Housseine), one external specialist in midwifery (Gaynor Maclean) and two external specialists in obstetrics (Jos van Roosmalen and Birgitte Bruun Nielsen).

PartoMa colour codes of urgency: ◆ Uncomplicated ◆ Warning ◆ Danger

Contents

Saada (anxiety, poor progress with poor uterine activity, oxytocin augmentation)

📖 *Special focus on pages 1 and 7 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Saada is admitted 16th June at 15:00:
Saada is 27 years old. She is gravida 3, para 0 with 2 previous spontaneous abortions. Her pregnancy has been uncomplicated. Her mother and sister followed her to the hospital. They asked a nurse assistant if they could be with her during childbirth, but this was not possible. Saada knows that they are waiting for her outside the maternity unit.
On admission, Saada appears to have painful and frequent contractions. In between contractions she seems calm. She is walking around and has recently been eating and drinking. Findings of the admission assessment are:

- Longitudinal lie, vertex presentation
- FHR 130 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 4 cm, intact membranes
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- Pulse 90 bpm, BP 120/80 mmHg
- Temperature 36,7 °C

Today, there are many women in labour and Saada is asked to lie down in a bed where another woman is already lying with painful contractions.

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition, but no continuous support is a problem
Baby: ◆ Good condition
Labour progress: ◆ First stage of active phase

⏳ What do you imagine that Saada is thinking?
Discuss how it must feel to be Saada at the maternity ward on a busy day (neglected, alone, naked, scared…)

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan)
Start partograph on alert line

During the next 4 hours, FHR is assessed 3 times:

- FHR ranges 125-135 bpm

It is now 19:00 in the evening:
Saada is lying in a corner of the bed. The other woman in her bed just delivered in the bed, and there was much bleeding. Saada is in pain and she is anxious and concerned whether everything is okay.

Saada can see three birth attendants in uniforms sitting and chatting at a bench in the other end of the room. She can hear that they are talking about a wedding and laughing. She has tried to get their attention several times – saying "sister please, I am in pain – is everything okay?" – but they didn't come. She feels alone.

⏳ What are your thoughts on this situation?
Let the participants discuss, focusing on the following topics:
Do you think this happens often at your maternity unit?
How do you imagine that it feels to be Saada?

Then, you come into the room and hear that Saada is calling. You look at Saada's partograph and conclude that it is time for examination:

- FHR 140 bpm
- Foetal head 4/5 palpable
- 2 contractions in 10 minutes, each lasting 20 seconds
- Cervix dilated 6 cm, intact membranes
- Pulse 85 bpm, BP 115/70 mmHg
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Good condition
Labour progress: ◆ First stage of active phase, slow progress, between alert and action lines

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
1. *Discuss 5 Ps to explore why the progress is poor (use the PartoMa Pocket Guide):*
   <u>Power:</u> Possibly suboptimal uterine activity
   <u>Pass urine:</u> She has not passed urine in the last 2 hours
   <u>Psychology:</u> She is anxious
   <u>Passenger:</u> Assess presentation and position (cephalic presentation, occiput anterior position)
   <u>Pelvis:</u> A rare problem. Other factors should be managed before considering this
2. *It appears to be a power problem, and full bladder and anxiety might be causes. Therefore, enhance labour by artificial rupture of membranes (head is engaged), ambulation, eat and drink, pass urine, reassuring and respectful caring support*
   REMEMBER: OXYTOCIN IS NOT INDICATED BEFORE THE ACTION LINE
3. *Routine assessments with FHR every 30 minutes, and next vaginal examination in 2 hours (as the alert line is crossed)*

During the next 2 hours, FHR is assessed 2 times:

- FHR ranges 130-140 bpm

Saada is assessed again at 21:00:
Saada is still lying in the bed. She is complaining of painful contractions, but she doesn't appear to have many. She is crying.

- FHR 130 bpm
- Foetal head 3/5 palpable above pelvic brim
- 2 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 6 cm, clear amniotic fluid
- The bones are just touching each other (+ moulding)
- Slight scalp oedema (+ caput succedaneum)

⏳ What is your interpretation?

Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ *Good condition*

Baby: ◆ *Good condition*

Labour progress: ◆ *First stage of active phase, poor progress, on partograph's action line*

⏳ What actions do you take?

Let the participants discuss. Their conclusion should focus on the following:

Repeat the 5 Ps to explore why progress is poor.

The problem still appears to be poor uterine activity, and now on action line. Therefore, start oxytocin augmentation:

Discuss the dosage, monitoring and titration of oxytocin.

Remember that oxytocin is potentially dangerous. It can cause hyperstimulation and foetal distress and therefore, it must be monitored carefully: Drops per minute, contractions and FHR must be assessed every 15 minutes

Encourage ambulation (standing next to the bed with the IV-line)

Encourage eating and drinking

Ensure that bladder is empty

Provide reassuring and caring support

You attend frequently to Saada during the next 4 hours. You are reassuring her that the baby is well (FHR between 130 and 140 bpm), and that labour is progressing well.

At 00:00:

Saada has a fully dilated cervix and she is starting to push.

- FHR 145 bpm
- Foetal head 0/5 palpable
- 4 contractions in 10 minutes, each lasting 45 seconds
- Clear amniotic fluid
- The bones are just touching each other (+ moulding)
- Slight scalp oedema (+ caput succedaneum)

⏳ What is your interpretation?

Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ *Good condition*

Baby: ◆ *Good condition*

Labour progress: ◆ *Good response to labour augmentation and caring support, now reassuring progress*

⏳ What actions do you take?

Let the participants discuss. Their conclusion should focus on management of second stage of labour with continual attendance and FHR assessment after every contraction (look in the PartoMa Pocket Guide together)

If time, hands-on training of vaginal delivery

Saada delivers spontaneously at 00:40:

- Apgar score 9 in 1 minute, 10 in 5 minutes.
- Birth weight 3580 gram

Saada and her baby are discharged 10 hours later, both in a good condition.

TAKE HOME MESSAGES

1. A companion of choice throughout labour and childbirth increases spontaneous vaginal birth and reduces caesarean sections. It furthermore reduces perception of pain and anxiety.
2. Anxiety may lead to a bad birth experience – it causes the woman to suffer more from labour pain and it may decrease the body's oxytocin production and thereby cause slow progress of labour. Respectful supportive care provides reassurance, decreases the perception of pain, and enhance labour progression
3. Artificial rupture of membranes, ambulation, pass urine, respectful caring support, eating and drinking are often effective and safe ways to enhance labour and should be tried before starting oxytocin augmentation, because of its risks such as uterine hyperstimulation and foetal distress (save oxytocin for women with crossed action line)
4. Oxytocin infusion can cause uterine hyperstimulation and foetal distress. Therefore, drops per minute, contractions and FHR should be monitored EVERY 15 MINUTES to assure the optimal dosage

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Husna (meconium, foetal distress, decision for CS or vacuum extraction)

📖 *Special focus on pages 5 and 13 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Husna is admitted 4th December at 4.10:
Husna is 22 years old and gravida 1, para 0. She has had an uncomplicated pregnancy. On admission she appears calm and in a good physical condition:

- Longitudinal lie, vertex presentation
- FHR 130 bpm
- Foetal head 5/5 palpable above pelvic brim
- 2 contractions in 10 minutes, each lasting 15 seconds
- Cervix dilated 2 cm, intact membranes
- Pulse 90 bpm, BP 120/80 mmHg
- Temperature 36,8 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Good condition
Labour progress: ◆ Latent phase

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Supportive care, walking around, eating and drinking
New assessment in 4 hours or when changes occur (for instance, increase in contractions or spontaneous rupture of membranes)
Start partograph (latent phase)

Husna is again assessed at 8:00:
Husna is walking. Contractions seem more painful now.

- FHR 130 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 5 cm, intact membranes
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- Pulse 90 bpm, BP 115/80 mmHg

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Good condition
Labour progress: ◆ First stage of active phase (transfer to alert line on partograph)

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan)

During the next 4 hours, FHR is assessed 3 times:

- FHR ranges 130-140 bpm

Husna is again assessed at 11:05:
Membranes have ruptured spontaneously. Therefore , Husna calls you. She is lying in the bed, and she still appears in good condition.

- FHR 140 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 8 cm, thick meconium in the amniotic fluid draining
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- Pulse 95 bpm, BP 128/85 mmHg

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆◆ Good condition (we are however a little concerned because of meconium)
Labour progress: ◆ First stage of active phase, normal progress

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Meconium might be a sign of foetal distress – check FHR every 15-30 minutes.
Plan for new vaginal examination in 2 hours, because we then expect full cervical dilatation.

FHR is reassessed at 11:30:

- FHR 108 bpm, assessed after a contraction

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition, as above (no new assessments)
Baby: ◆ Non-reassuring FHR (meconium)
Labour progress: ◆ Normal progress, as above (no new assessments)

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Intrauterine resuscitation and FHR every 15 minutes

FHR is again assessed at 11:45:

- FHR 105 bpm

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition, as above (no new assessments)

Baby: 🔶 Non-reassuring FHR (yellow zone in the PartoMa Pocket Guide)
Labour progress: 🟢 Normal progress, as above (no new assessments)

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Continue management with intrauterine resuscitation and FHR every 15 minutes. As long as FHR is above 100 bpm, this is not an indication for caesarean section)

Husna is again assessed at 12:00:

- FHR 80 bpm
- Maternal pulse 75 bpm
- Foetal head 3/5 palpable above pelvic brim
- Cervix dilated 9 cm, thick meconium in the amniotic fluid draining
- 4 contractions in 10 minutes, each lasting 40 seconds
- The bones are touching each other (+ moulding)
- Slight scalp oedema (+ caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🟢 Good condition
Baby: 🔴 Foetal distress (FHR 80 bpm)
Labour progress: 🟢 First stage of active phase (cervix 9 cm dilated)

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Intrauterine resuscitation <u>for 5 minutes ONLY</u>.
If no improvement in FHR to more than 100 bpm: <u>RUSH</u> for caesarean section.

After 5 minutes, FHR is still 80 bpm.

⏳ How soon shall the baby be delivered by caesarean section?
Let the participants discuss. Their conclusion should focus on the following:
As fast as possible and within 30 minutes

Just before starting surgery, at 12.18:

- FHR 70 bpm (maternal pulse: 75 bpm)
- Cervix still dilated 9 cm

⏳ Would vacuum extraction be a better option?
Let the participants discuss. Their conclusion should focus on the following:
No. Husna is nulliparous and the cervix is not fully dilated yet. Vacuum extraction would have been a safer and faster option if cervix had been fully dilated and foetal head had descended at or below ischial spines.

Husna delivers by caesarean section at 12:32:

- Apgar score 5 in 1 minute, and 9 in 5 minutes
- Birth weight 3200 gram

- ⏳ What is particularly important when delivering this baby?
  Let the participants discuss. Their conclusion should focus on the following:
  Immediate suction baby's mouth and nose if signs of obstruction or weak baby.

Husna and her baby are discharged 2 days later, both in good condition.

TAKE HOME MESSAGES

1. When women are admitted with FHR heard, it is our responsibility to assure that they are born alive. In addition, FHR abnormalities may also be an early sign of dangerous maternal conditions (for instance, maternal infection or impending uterine rupture).
   The PartoMa study at Mnazi Mmoja Referral Hospital found that 40% of stillborn babies were alive when admitted to the hospital.
2. Meconium can be an early sign of foetal distress, and therefore FHR needs close attention.
3. Foetal distress (FHR below 100 bpm) needs IMMEDIATE action: FHR should be reassessed within 5 minutes, and if still below 100 bpm, deliver immediately. It is NEVER indicated to wait 30 minutes and check again.
4. Vacuum extraction is first choice in second stage when head is no more than 2/5 palpable above the pelvic brim, as it is faster and has less risks for mother and baby.

Maryam (poor progress with signs of obstructed labour, postpartum bleeding)

📖 *Special focus on pages 7 and 15 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Maryam is admitted 24th February at 22:00:
Maryam is 25 years old, gravida 2, para 1. Both her previous and current pregnancy has been uncomplicated.
She appears to have painful contractions on admission. She is asking if her sister can be with her during labour. She appears nervous. You conduct the admission assessment:

- Longitudinal lie, vertex presentation
- FHR 130 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 4 cm, intact membranes
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- Pulse 80 bpm, BP 115/70 mmHg
- Temperature 36,9 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ *Good condition*
Baby: ◆ *Good condition*
Labour progress: ◆ *First stage of active phase*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan)
Start partograph on alert line

During the next 4 hours, FHR is assessed 3 times:

- FHR ranges 120-135 bpm

Maryam is again assessed at 02:00:
She has painful contractions, but otherwise she appears in a good condition.

- FHR 140 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 6 cm, intact membranes
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ *Good condition*

Baby: ◆ *Good condition*
Labour progress: ◆ *First stage of active phase to the right of the alert line*

⏳ What actions do you take?

Let the participants discuss. Their conclusion should focus on the following:

1. *Discuss 5 Ps to explore why the progress is poor (use the PartoMa Pocket Guide):*
   <u>Power:</u> Poor uterine activity
   <u>Pass urine:</u> She has not passed urine in the last 2 hours
   <u>Psychology:</u> She appears anxious
   <u>Passenger:</u> Assess presentation and position (cephalic presentation, occiput anterior position)
   <u>Pelvis:</u> A rare problem. Other factors should be managed before considering this
2. *It appears to be a power problem, and full bladder and anxiety might be causes. Therefore, artificial rupture of membranes (head is engaged), ambulation, eat and drink, pass urine, reassuring and respectful caring support*
   REMEMBER: OXYTOCIN IS NOT INDICATED BEFORE THE ACTION LINE
3. *Routine assessments with FHR every 30 minutes, and next vaginal examination in 2 hours (as the alert line is crossed)*

During the next 2 hours, FHR is assessed 3 times:

- FHR ranges 125-130 bpm

Maryam is assessed at 04:00:

- FHR 140 bpm
- Foetal head 4/5 palpable above pelvic brim
- 4 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 8 cm, clear amniotic fluid draining
- The bones are just touching each other (+ moulding)
- Slight scalp oedema (+ caput succedaneum)

⏳ What is your interpretation?

Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ *Good condition*
Baby: ◆ *Good condition*
Labour progress: ◆ Progress nearly parallel to the alert line, which is reassuring (good effect of artificial rupture of membranes, ambulation etc.). No further descent of foetal head, which is a bit non-reassuring.

⏳ What actions do you take?

Let the participants discuss. Their conclusion should focus on the following:

Respectful supportive care
FHR every 30 minutes and next vaginal examination in 2 hours

During the next 2 hours, FHR is assessed 3 times:

- FHR ranges 125-135 bpm

Maryam is assessed again at 06:00:
She is complaining of strong and painful contractions. She feels very tired.

- FHR 180 bpm
- Foetal head 4/5 palpable above pelvic brim
- 5 contractions in 10 minutes, each lasting more than 50 seconds
- Cervix dilated 8 cm, meconium in amniotic fluid draining
- The bones are overlapping (++ moulding)
- Scalp oedema (++ caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🟢🟡 *Good condition, but appears exhausted*
Baby: 🔴 *Foetal distresss (high FHR)*
Labour progress: 🔴 Severe poor progress in first stage active phase, on action line. Still no descent of foetal head.

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
1. *Discuss 5 Ps to explore why the progress is poor (use the PartoMa Pocket Guide):*
   <u>Power:</u> Strong uterine contractions
   <u>Pass urine:</u> She passed urine 30 minutes ago, blood-stained
   <u>Psychology:</u> She appears tired and in pain
   <u>Passenger:</u> Cephalic presentation, moulding ++, caput ++
   <u>Pelvis:</u> A rare problem. Other factors should be managed before considering this
2. *No progress in cervical dilatation and descent (red zone), moulding, meconium-staining and abnormally high FHR are together PROGRESSIVE SIGNS OF OBSTRUCTION. Caesarean section is indicated.*
   Oxytocin augmentation is NOT indicated.
3. *Make sure that the high FHR is not caused by maternal infection*
4. *Consider the possibility of uterine rupture*

⏳ How soon should the baby be delivered by caesarean section?
Let the participants discuss. Their conclusion should focus on the following:
As soon as possible. If uterine rupture is suspected, it should be within 30 minutes

Maryam delivers by caesarean section at 06:42

- Apgar score 6 in 1 minute and 10 in 5 minutes
- Birth weight 3400
- Maryam: Pulse 92 bpm, BP 130/85 mmHg

Maryam is transferred to the ward.

1 hour after delivery, you walk by Maryam's bed:
You realise that no one has assessed Maryam since delivery. She is bleeding vaginally.

- Pulse 105 bpm, BP 90/60 mmHg
- Uterus atonic
- Estimated total blood loss is 2000 ml

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
🔴 *POST-PARTUM BLEEDING, discovered late and with signs of shock*
(this means that she has already lost approximately 30% of her blood volume)

⏳ What actions do you take?

Let the participants discuss the immediate management of post-partum bleeding, in accordance with PartoMa Pocket Guide.

✋ If time, scenario training of managing postpartum bleeding, with 3 participants stationed around an imaginary patient.

After 10 minutes of urgent management of postpartum bleeding, the bleeding decreases. Maryam receives 3 units of blood.

Four days later, Maryam is discharged with her baby, both in a good condition.

TAKE HOME MESSAGES

1. No progress in cervical dilatation (action line, red zone) and no descent, moulding (+++), meconium-staining and abnormally high FHR can lead to OBSTRUCTION if you do not take action.
2. In the first 2 hours after delivery, mother's general condition, pulse and BP, uterine consistency (fundal height), and vaginal blood loss must be checked EVERY 15-30 MINUTES.
3. For the management of post-partum bleeding, you should be at least 3 people: one provides continual uterine massage and check the 4 Ts (tone, tissue, trauma, thrombin), while the others take care of head and arms, respectively.
4. It is important to advise Maryam to seek advice early in any subsequent pregnancy as she now has a uterine scar.

Fatma (foetal distress, vacuum extraction, Apgar score, neonatal resuscitation)

📖 *Special focus on pages 4 and 14 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Fatma is admitted 16th July at 20.00:
Fatma is 32 years old and gravida 4, para 2. Both previous pregnancies and current one have been uncomplicated. On admission she has strong, frequent and painful contractions. She starts to push. You immediately help her to a delivery bed and assess:

- Longitudinal lie, vertex presentation
- FHR 122 bpm
- Foetal head 2/5 palpable above pelvic brim
- 4 contractions in 10 minutes, each lasting 55 seconds
- Cervix dilated 10 cm, clear amniotic fluid
- Pulse 94 bpm, BP 135/85 mmHg
- Temperature 36,8 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Good condition
Labour progress: ◆ Second stage of labour

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful supportive care and routine management in second stage of labour
Start partograph on alert line at 10 cm cervical dilatation

Fatma is assessed again at 20.05:

- FHR 95 bpm
- Foetal head 1/5 above pelvic brim

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Foetal distress
Labour progress: ◆ Second stage of labour (foetal head below ischial spines)

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Intrauterine resuscitation (change position), check FHR again within 5 minutes
Call doctor

At 20.10:

- FHR 80 bpm
- Foetal head 1/5 above pelvic brim

⏳ What is your interpretation?

Let the participants discuss. Their conclusion should focus on ◆ *Foetal distress*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
IMMEDIATE DELIVERY by vacuum extraction if possible (briefly show participants the PartoMa Pocket Guide for vacuum extraction)

✋ If time, hands-on training in vacuum extraction by mannequins and vacuum extractor

At 20.18:
Baby is delivered by vacuum extraction.

Mother is in good condition. No vaginal or perineal tears.

Baby is assessed immediately:

- Blue limbs and pink body, no response to stimulation, no activity, no respiration
- Heart rate 70 bpm

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
◆ *Apgar score 2 in 1 minute*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:

IMMEDIATE NEONATAL RESUSCITATION:
VENTILATION BY BAG AND MASK SHOULD BE STARTED WITHIN 1 MINUTE (the golden minute)

✋ Hands-on training of neonatal resuscitation, by mannequin-baby + bag-mask ventilation.

5 minutes after delivery (and 4 minutes after starting resuscitation):

- Blue limbs and pink body, grimace when stimulated, some flexion, weak respiration
- Pulse 130 bpm

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
◆ *Apgar score 6 in 5 minutes*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on continuing ventilation support

8 minutes after delivery, the baby starts to cry:
The Apgar score is 9 in 10 minutes, and the baby is now monitored lying on Fatma's chest.

- Apgar score 10 in 15 minutes
- Birth weight 3250 gram

⏳ What is important to remember after delivery for all women and babies?

Let the participants discuss routine post-delivery care for mother and baby by use of PartoMa Pocket Guide.

The baby stays skin-to-skin with mother and starts breastfeeding within 30 minutes after delivery. Both Fatma and her baby is doing well on discharge 2 days later.

TAKE HOME MESSAGES

1. Never leave a woman alone in second stage of labour and listen to FHR after every contraction
2. Always have delivery set and ambu-bag ready in second stage
3. Vacuum extraction is first choice in second stage when head is no more than 2/5 palpable above the pelvic brim, as it is faster and has less risks for mother and baby.
4. If baby is not breathing, IMMEDIATE BAG-MASK VENTILATION should be started within 1 minute (THE GOLDEN MINUTE). This can save the baby from death or life-long disabilities (for example cerebral palsy or learning difficulties).
5. A low Apgar score might indicate minimal or bigger brain damage, which cannot be assessed fully until years later.

Wahida (pre-eclampsia and eclampsia)

📖 *Special focus on page 8 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph. Also have observation and treatment sheets for hypertensive disorders ready.

Wahida is admitted 15 June at 20:00:
Wahida is gravida 1, para 0. She has attended the antenatal clinic 4 times.
Until last ANC visit, pregnancy has been uncomplicated. At the last ANC visit, BP was 145/90 mmHg. There is no other information on the antenatal card, and according to Wahida, no actions were taken.
Now Wahida has painful contractions. When you see her, she doesn't look well. She seems very tired, nervous and in pain. You ask her how she feels. She says 'okay' – but when asking kindly again, she whispers that she has a bad headache, and it has been there for some time.

⏳ What is your interpretation and actions to consider?
Let the participants discuss. Focus should be on history taking, assessments and information to the patient, tender loving care. Pre-eclampsia and anaemia should be considered.

You take her patient history and assess the following:

- Oedema and dark urine
- Longitudinal lie, vertex presentation
- FHR 130 bpm
- Foetal head 5/5 palpable above pelvic brim
- 2 contractions in 10 minutes, each lasting 25 seconds
- Cervix 2 cm dilated, membranes intact
- Pulse 85 bpm, BP 165/110 mmHg
- Urine protein 3+
- Temperature 37.1 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Severe pre-eclampsia
Baby: ◆◆ Good condition, but increased risk due to maternal pre-eclampsia
Labour progress: ◆ Latent phase

⏳ What actions do you take?
Let the participants discuss and facilitate development of a full plan for monitoring and treatment, supported by PartoMa Pocket Guide. The plan must include:
- *Magnesium sulphate*
- *Antihypertensive treatment (for instance, hydralazine)*
- *Enhance labour progression (rupture of membranes if possible)*
- *Assessment plan, including observation and treatment sheets for hypertensive disorders*
- *Start partograph (latent phase)*
- *Delivery within 12 hours*

Give additional estimates for the assessments when asked for. For example:
- *Fluids: 100 ml orally in 1 hr.*
- *Urine output: 40 ml in 1 hr.*

At 00:00:

The headache has decreased and Wahida is feeling a little better. The contractions are strong and painful now. The plan that you made has been followed and you now assess the following:

- FHR 124 bpm
- Foetal head 3/5 palpable above pelvic brim
- 4 contractions in 10 minutes, each lasting 45 seconds
- Cervix 7 cm dilated, clear amniotic fluid
- The bones are just touching each other (+ moulding)
- Pulse 85 bpm, BP 155/105 mmHg

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Severe pre-eclampsia, condition improved with reduced blood pressure, but still too high
Baby: ◆◆ Good condition, but increased risk due to maternal pre-eclampsia
Labour progress: ◆ Good progress, now first stage of active phase (cervix 7 cm)

⏳ What actions do you take?
Their discussion should focus on continuing their plan, and transferring to alert line on the partograph.

At 03:00:
Wahida is crying and contractions seem painful. You now assess the following:

- FHR 124 bpm
- Foetal head 2/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 35 seconds
- Cervix fully dilated, clear amniotic fluid
- The bones are just touching each other (+ moulding)
- Slight scalp oedema (+ caput succedaneum)
- Pulse 90 bpm, BP 165/115 mmHg

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Severe pre-eclampsia, blood pressure increased again and crying (organ symptoms?, pain?, anxiety?)
Baby: ◆◆ Good condition, but increased risk due to maternal pre-eclampsia
Labour progress: ◆ Second stage of labour

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Hypertension: Hydralazine is indicated. Continue treatment plan for severe pre-eclampsia.
Management of second stage of labour with continual attendance and FHR assessment after every contraction (look in the PartoMa Pocket Guide together)

At 03:55:
Wahida has just delivered vaginally.

- Apgar score 9 in 5 minutes
- Birth weight 2600 g

Clinically, Wahida appears very tired:

- GCS 15
- Pulse 95 bpm, BP 160/108 mmHg still too high
- Estimated blood loss: 420 ml

7 hours post-partum, at 10:55:
Suddenly Wahida starts convulsing.

- Pulse 85 bpm, BP 205/120 mmHg

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Eclampsia.
Perhaps she didn't receive the maintenance dose as planned!

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on managing convulsions and antihypertensive treatment (supported by the PartoMa Pocket Guide)

TAKE HOME MESSAGES

1. ASSESS BLOOD PRESSURE ON ALL WOMEN DURING ADMISSION FOR CHILDBIRTH.
   19% of Zanzibarian women aged 25-44 years have hypertension
   7% of women in childbirth at Mnazi Mmoja Referral Hospital of Zanzibar have severe hypertensive disorders
2. Severe hypertensive disorders are extremely dangerous for both mother and baby if not monitored and treated properly
3. Safe and respectful timely care for women with pre-eclampsia during childbirth includes close attention to clinical guidelines (as a checklist) – REMEMBER anticonvulsive, antihypertensive, strict fluid balance, strict use of observation and treatments sheets, and delivery.

Halima (respectful care, foetal distress, uterine rupture)

📖 *Special focus on pages 5 and 14 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Halima is admitted June 20 at 00:15:
Halima is 28 years old. She is gravida 2, para 1 and her pregnancy has been uncomplicated. First pregnancy was also uncomplicated and ended by a spontaneously vaginal delivery.
When entering the maternity ward, Halima appears to have painful and frequent contractions. In between contractions, she seems calm. You conduct the admission assessment:

- Longitudinal lie, vertex presentation
- FHR 130 bpm
- Foetal head 3/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 30 seconds
- Cervix dilated 4 cm, intact membranes
- BP 120/80 mmHg, P 72 bpm
- Temperature 37,0 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Good condition
Labour progress: ◆ First stage of active phase of labour

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan)

Halima is again assessed at 04:00:
Halima is lying in the bed. She is in pain and no one has talked to her or examined her since admission.

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
How is it to be Halima? How often should she have been examined during these hours? (FHR at least every hour etc.)

You then examine her and find the following:

- FHR 135 bpm
- Foetal head 3/5 palpable above pelvic brim
- Cervix dilated 8 cm
- 4 contractions in 10 minutes, each lasting 50 seconds
- Membranes have ruptured spontaneously, clear amniotic fluid
- Pulse 85 bpm, BP 115/70 mmHg
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ Normal vital signs – but possibly anxiety
Baby: ◆ Good condition
Labour progress: ◆ First stage of active phase, good progress

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful caring support and surveillance

At 04:30 you again go to assess FHR:
Contractions appear very strong. Halima is in pain, she is crying.

- FHR 125 bpm

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Appears normal. We would like to know how frequent and strong contractions are (5 in 10 minutes, each lasting 50 seconds)
Baby: ◆ Good condition
Labour progress: ◆ According to contractions we expect good progress

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Continue previously mentioned plan. Next assessment at 05:00.

At 05:00 you again go to assess FHR:
Halima still has very frequent and painful contractions. She nearly does not get any time to rest in between contractions. She is vomiting on her kanga and on the floor.

- FHR 105 bpm

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ A bit concerned as she might have too strong contractions. We would like to know how frequent and strong contractions are (5 in 10 minutes, each lasting 50 seconds)
Baby: ◆ Non-reassuring FHR
Labour progress: ◆ According to contractions we expect good progress

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Intrauterine resuscitation, maternal vital signs, FHR every 15 minutes Tender, loving care (help Halima to clean up vomit).

At 05:10 Halima calls for you:
Halima appears distressed and in severe and constant pain, located to the uterus. You immediately assess:

- FHR 70 bpm
- Foetal head 5/5 palpable above pelvic brim
- It is difficult to assess contractions
- Cervix dilated 5 cm
- Pulse 105 bpm, BP 115/70 mmHg

- The head cannot be reached

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Constant pain and high pulse
Baby: ◆ Foetal distress
Labour progress: ◆ Not good
We suspect ◆ Uterine rupture

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
LAPARATOMY NOW, to save both Halima and her baby

Finally, please share this information with the participants:

In reality, this woman was not seen between 4:30 am and 8:00.

At 8:00 she collapsed in the restroom. She complained of abdominal pain, and her vital signs were:
Pulse 96 bpm, BP 60/40 mmHg, no FHR heard, dilatation 5cm.

After waiting for ultrasound examination, which caused additional unnecessary delays (ultrasound was not indicated!), laparotomy was performed at 10:00: Ruptured uterus, fresh stillbirth (3.9kg),

The woman died during surgery.

TAKE HOME MESSAGES

1. If FHR is assessed every 30-60 minutes, it will not only indicate foetal distress, but also be an early sign in case of maternal morbidities, such as maternal infection or impending uterine rupture.
2. The typical symptoms of ruptured uterus are tender abdomen, abdominal distension, abnormal shape of uterus, loss of station (foetal head goes up), high maternal pulse, low/absent foetal heart rate, blood in urine, shock and vaginal bleeding. It is more common in women with previous scar, grand multiparous women, and when administering oxytocin/misoprostol.
3. Always pay attention to the woman's psychological well-being (mood) and pain. Respectful supportive care provides reassurance, decreases the perception of pain, and reduces the need for oxytocin augmention of labour.

Asia (grand multiparity, meconium, foetal distress, team work, neonatal resuscitation)

📖 *Special focus on pages 5 and 16 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Asia is admitted October 10 at 13:00:
Asia is 37 years old. She is gravida 7, para 6 with 5 living children. She suffered from intrapartum stillbirth in her latest pregnancy. Otherwise, all pregnancies and deliveries have been uncomplicated. Her current pregnancy has been uncomplicated as well.
She seeks care because she feels labour pain is starting. On admission, she appears in good condition. You conduct the admission assessment:

- Longitudinal lie, vertex presentation
- FHR 130 bpm
- Foetal head 3/5 palpable above pelvic brim
- 2 contractions in 10 minutes, each lasting 30 seconds
- Cervix dilated 1 cm, membranes intact
- Pulse 81 bpm, BP 100/85 mmHg
- Temperature 36,8 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Good condition
Labour progress: ◆ Latent phase

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful supportive care (mental support is particularly important due to previous stillbirth).
Routine assessments (look in the PartoMa Pocket Guide together and mention the plan).
Start partograph (latent phase).
New assessment in 4 hours or when changes occur (for instance, increase in contractions or spontaneous rupture of membranes).

⏳ Are there any specific risks to consider in Asia's case?
Let the participants discuss. Their conclusion should focus on the following:
Women who previously experienced intrapartum stillbirths or early neonatal deaths are in increased risk for this happening again, and may in addition suffer from increased anxiety.
Grand multiparas (parity > 5) have increased risks of maternal and perinatal complications:
i. Increased likelihood of malpresentations
ii. Increased likelihood of placenta praevia
iii. Increased likelihood of uterine rupture (particularly if oxytocin infusion)
iv. Increased prevalence of meconium-stained liquor and low Apgar score

Asia calls you at 16:30:
Labour pains have increased, and you assess:

- FHR 135 bpm

- Foetal head 3/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 35 seconds
- Cervix dilated 6 cm, membranes ruptured, thin meconium
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- Pulse 81 bpm, BP 110/90 mmHg

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆◆ Good condition, but meconium might be an early sign of foetal distress
Labour progress: ◆ First stage of active phase

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Transfer to alert line on the partograph.
Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan, including when to assess what). FHR at least every 30 minutes, due to meconium.

FHR is assessed again at 17:00:
Asia appears fine.

- FHR 130 bpm

FHR is assessed again at 17:30:
Asia complains of increased labour pains.

- FHR 106
- 5 contractions in 10 minutes, each lasting 45 seconds

You decide to perform an extra vaginal examination, as you predict fast labour progress in this grand multiparous woman with frequent and strong contractions:

- Cervix dilated 8 cm, membranes ruptured, still thin meconium
- The bones are separated and the sutures can be felt easily (no moulding)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Non-reassuring FHR
Labour progress: ◆ First stage of active phase of labour, good progress

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Intrauterine resuscitation (see the PartoMa Pocket Guide), FHR every 15 minutes.

⏳ What could the causes be to the foetal problem?
Let the participants discuss. Their conclusion should focus on the following:
Too strong contractions?
Placenta/uterine problem? (abruptio placenta, uterine rupture)

Compression of cord (presentation, position?)
Maternal hypotension?
Normal variations in FHR

At 17:45:
Asia is worried. Otherwise, she appears fine, and she has no pain in between contractions. You assess:

- FHR 120 bpm
- Pulse 85 bpm, BP 110/70 mmHg

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Continue FHR assessments every 15 minutes. Respectful supportive care.

You are now called to an emergency caesarean section for another patient.

⏳ What actions do you take concerning Asia?
Let the participants discuss the importance of passing over the patient to a fellow birth attendant.

At 19:30:
You are back from surgery. You realize that your colleague misunderstood your instructions. Asia has not been assessed for nearly 2 hours. Asia has started to push without support from a birth attendant, and you immediately assess her:

- FHR 75 bpm
- Foetal head 0/5 palpable above pelvic brim, crowning
- 5 contractions in 10 minutes, each lasting 50 seconds
- Cervix dilated 10 cm, meconium
- The bones are touching (+ moulding)
- Slight scalp oedema (+ caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Foetal distress
Labour progress: ◆ Second stage of labour, foetal head is crowning

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Head is crowning, and we expect spontaneous delivery in next contraction. However, if not, we prepare for vacuum extraction.

⏳ Is it a common problem at your maternity unit that patients like Asia are forgotten?
Let the participants discuss the importance of handing over information on patients, and working as a team

⏳ What are the risks for babies suffering from foetal distress (the short and long-term complications)?
Let the participants discuss. Their conclusion should focus on the following:
Foetal/neonatal death
Long-term disabilities (for instance, cerebral palsy and learning difficulties)

Baby is delivered spontaneously during the next contraction:

Mother is in good condition. Baby is assessed immediately:

- Blue limbs and pink body, no response to stimulation, no activity, no respiration
- Heart rate 65 bpm

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
◆ *Apgar score 2 in 1 minute*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:

IMMEDIATE NEONATAL RESUSCITATION:
Gently suction mouth and nose (due to meconium)
VENTILATION BY BAG AND MASK SHOULD BE STARTED WITHIN 1 MINUTE (the golden minute)

✋ Hands-on training of neonatal resuscitation, by mannequin-baby + bag-mask ventilation.

5 minutes after delivery (and 4 minutes after starting resuscitation):

- Blue limbs and pink body, grimace when stimulated, some flexion, weak respiration
- Heart rate 130 bpm

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
◆ *Apgar score 6 in 5 minutes*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on continuing ventilation support

8 minutes after delivery, the baby starts to cry:
The Apgar score is 9 in 10 minutes, and the baby is now monitored lying on Asia's chest.

- Apgar score 10 in 15 minutes
- Birth weight 3250 gram

The baby stays skin-to-skin with Asia and starts breastfeeding within 30 minutes after delivery.
Both Asia and her baby are doing well on discharge 2 days later.

TAKE HOME MESSAGES

1. Grand multiparas (parity of more than 5) are at increased risk for malpresentation, placenta previa, meconium, and low Apgar score
2. When FHR is below 100 bpm, you reassess after only 5 minutes If not improved, you plan for expedite delivery (caesarean section or vacuum extraction).

3. If baby is not breathing, IMMEDIATE BAG-MASK VENTILATION should be started within 1 minute (THE GOLDEN MINUTE). This can save the baby from death or life-long disabilities (for example cerebral palsy or learning difficulties)
4. TEAM WORK is extremely important to assure surveillance of the women in labour.´
5. A low Apgar score might indicate minimal or bigger brain damage, which cannot be assessed fully until years later.

Tabia (poor progress with poor uterine activity and oxytocin titration)

📖 *Special focus on page 7 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Tabia is admitted 8th May at 15:00:
Tabia is 19 years old. She is gravida 1 para 0, and her pregnancy has been uncomplicated.
On admission, she appears to have painful and frequent contractions. She is crying and asking if her sister can be with her. The following assessments are done:

- Longitudinal lie, vertex presentation
- FHR 130 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 5 cm, ruptured membranes for 2 hours, clear amniotic fluid
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- Pulse 90 bpm, BP 115/80 mmHg
- Temperature 36,7 °C

Today, there are many women in labour, and Tabia is asked to lie down in a bed, where another woman is already lying with painful contractions.

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Good condition
Baby: ◆ Good condition
Labour progress: ◆ First stage of active phase of labour

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan).
Discuss if a relative could be invited to the maternity unit as birth companion for continual support.
Start partograph on alert line.

During the next 4 hours, FHR is assessed 3 times:

- FHR ranges 130-150 bpm

Tabia is assessed again at 19:00:
Tabia is lying in a corner of the bed. The other woman in her bed has strong contractions. Tabia is in pain too and she is concerned whether everything is okay.

- FHR 140 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 20 seconds
- Cervix dilated 7 cm, clear amniotic fluid
- Pulse 85 bpm, BP 115/70 mmHg
- The bones are separated and the sutures can be felt easily (no moulding)

- No localized scalp oedema (no caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🟢 *Good condition*
Baby: 🟢 *Good condition*
Labour progress: 🟡 *First stage of active phase, slow progress, between alert and action lines*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
1. *Discuss 5 Ps to explore why the progress is poor (use the PartoMa Pocket Guide):*
   Power: Suboptimal uterine activity
   Pass urine: She has not passed urine in the last 2 hours
   Psychology: She is anxious
   Passenger: Assess presentation and position (cephalic presentation, occiput anterior position)
   Pelvis: A rare problem. Other factors should be managed before considering this
2. *It appears to be a power problem, and full bladder and anxiety might be causes. Therefore, artificial rupture of membranes (head is engaged), ambulation, eat and drink, pass urine, reassuring and respectful caring support*
   REMEMBER: OXYTOCIN IS NOT INDICATED BEFORE THE ACTION LINE
3. *Routine assessments with FHR every 30 minutes, and next vaginal examination in 2 hours (as the alert line is crossed)*

During the next 2 hours, FHR is assessed 2 times:

- FHR ranges 130-140 bpm

Tabia is assessed again at 21:00:
Tabia is still lying in the bed.

- FHR 130 bpm
- Foetal head 3/5 palpable above pelvic brim
- 2 contractions in 10 minutes, each lasting 25 seconds
- Cervix dilated 7 cm, clear amniotic fluid
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🟢 *Good condition*
Baby: 🟢 *Good condition*
Labour progress: 🔴 *First stage of active phase, poor progress (on the action line)*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
1. *Discuss 5 Ps to explore why the progress is poor (use the PartoMa Pocket Guide):*
   Power: Poor uterine activity
   Pass urine: She has not passed urine in the last 2 hours (urination 2 hours ago)
   Psychology: She still appears anxious

<u>Passenger:</u> Assess presentation and position (cephalic presentation, occiput anterior position)

<u>Pelvis:</u> A rare problem. Other factors should be managed before considering this

2. *It still appears to be a power problem. Therefore, empty bladder and start oxytocin augmentation: 2,5 IU in 500 ml Ringer's Lactate or Normal Saline (see the PartoMa Pocket Guide):*

   Remember the risks of oxytocin (foetal distress and uterine rupture). Therefore, assessment of FHR and contractions every 15 minutes). This is extremely important!

   Plan for oxytocin titration
3. *Encourage the woman to stand up next to the bed with the IV infusion*
4. *Next vaginal examination after 2 hours*

At 21:30:

Tabia is now standing next to the bed.

- FHR 125 bpm
- 3 contractions in 10 minutes, each lasting 35 seconds
- Urine volume: She has been to the toilet
- Oxytocin in normal saline: 10 drops per minute

⏳ What is your interpretation?

Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ Good condition

Baby: ◆ Good condition

Labour progress: ◆ First stage of active phase, poor progress, still insufficient power of contractions

⏳ What actions do you take?

Let the participants discuss. Their conclusion should focus on the following:

Oxytocin titration: increase with 5 drops per minute

Respectful caring support

Assess FHR, contractions and drops per minute every 15 minutes

At 22:00:

Tabia is still standing next to the bed.

- FHR 128 bpm
- 4 contractions in 10 minutes, each lasting 40 seconds
- Oxytocin in normal saline: 15 drops per minute

⏳ What is your interpretation?

Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ Good condition

Baby: ◆ Good condition

Labour progress: ◆ First stage of active phase, poor progress (action line), but now 4 strong contractions in 10 minutes

⏳ What actions do you take?

Let the participants discuss. Their conclusion should focus on the following:

Continue oxytocin dosage of 15 drops per minute, and assess the patient every 15 minutes (FHR, contractions).

Next vaginal examination at 22:30.

At 22:30:
Tabia is still standing next to the bed.

- FHR 135 bpm
- 4 contractions in 10 minutes, each lasting 45 seconds
- Oxytocin in normal saline: 15 drops per minute

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Continue oxytocin dosage of 15 drops per minute, and assess the patient every 15 minutes (FHR, contractions).
Next vaginal examination at 23:00.

At 23:00:
Tabia is complaining of strong contractions now. You assess:

- FHR 108 bpm
- Foetal head 3/5 palpable above pelvic brim
- 5 contractions in 10 minutes, each lasting 55 seconds
- Cervix dilated 9 cm, meconium
- The bones are just touching each other (+ moulding)
- Slight scalp oedema (+ caput succedaneum)
- Oxytocin in normal saline: 15 drops per minute

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🟢🟡 Good condition, but very strong contractions
Baby: 🟡 Non-reassuring FHR
Labour progress: 🟢🟡 Good progress, slope is following the action line.

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
STOP OXYTOCIN
Intrauterine resuscitation (see the PartoMa Pocket Guide)
Assess FHR again after 15 minutes

Tabia continues to have strong contractions without more oxytocin, and FHR stays between 105 and 120.

At 23:35 Tabia delivers:

- Apgar score 7 in 1 minute and 10 in 5 minutes.
- Birth weight 3800g.

Tabia and her daughter are both doing well on discharge the next morning.

⏳ What information do you give to all women on discharge after childbirth?
Let the participants discuss, and look in the PartoMa Pocket Guide together.

TAKE HOME MESSAGES

1. Anxiety may lead to a bad birth experience – it causes the woman to suffer more from labour pains and it may decrease the body's oxytocin production and thereby cause poor progress of labour. Respectful supportive care provides reassurance, decreases the perception of pain, and enhance labour.
2. Artificial rupture of membranes, ambulation, pass urine, psychological support and eat&drink are often effective and safe ways to enhance labour and should be tried prior to starting the more risk-associated oxytocin augmentation (especially in yellow zone).
3. Oxytocin can cause uterine hyperstimulation, and drops per minute, contractions and FHR should be monitored EVERY 15 MINUTES to assure optimal dosage.

Zuwena (antepartum haemorrhage, foetal death, severe pre-eclampsia)

📖 *Special focus on pages 5, 8 and 14 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph. Also have observation and treatment sheets for hypertensive disorders ready.

Zuwena is admitted 2nd February at 08.00:

Zuwena is 34 years old. She is gravida 2, para 1. According to last menstrual period, gestational age is 37 weeks.
She appears tired and pale on admission. She is complaining of vaginal bleeding.
During admission, the following is recorded by another birth attendant:

- Previous obstetric history: She doesn't remember
- Cervix soft, 2 cm dilated
- Slight contractions
- FHR not heard

Zuwena is then referred to a bed in the post-delivery room for assessment after 4 hours or if changes occur.

⏳ What do you think of this initial management?
Let the participants discuss – they should consider the following:

1. *Unacceptable quality of admission assessment (for instance, no maternal vital signs) and possible reasons for that?*
2. *Vaginal bleeding (APH) – and anaemia? Discuss causes to APH (see the PartoMa Pocket Guide). Vaginal examination should not have been done, due to the risk of placenta praevia as cause to APH*
3. *The problem of having critically ill patients in a room where surveillance is little.*
4. *Foetal heart rate not heard. What action should have been initiated? (see the PartoMa Pocket Guide). The discussion should include confirmation of absent FHR.*

Zuwena is calling for help at 10:00:

You hear Zuwena calling for help and you attend to her. She has abdominal pain.

⏳ What do you assess?
Let the participants discuss – they should consider the following:

- *Amount of fresh vaginal bleeding (APH). Approximate blood loss since admission is at least 600ml.*
- *Pulse 88 bpm, BP 180/110 mmHg*
- *RR: 20 breaths per minute*
- *GCS: 15/15*
- *Lungs: clear*
- *Urine: protein 3+*
- *Temperature: 37.2 °C*
- *FHR not recordable*
- *Uterus: Tender in between contractions. 4 strong contractions in 10 minutes*
- *Membranes intact*
- *Urgent ultrasound to exclude placenta praevia (if time allows for it): Placenta was found in the fundus, and intrauterine foetal death confirmed.*
  Vaginal examination was then done: Cervix 7 cm, foetal head 4/5 palpable above pelvic brim. Membranes intact.

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:

Mother: ◆ Severe pre-eclampsia, APH, possibly abruptio placenta. At the moment, haemodynamic stable.
Baby: ◆ Possibly intrauterine foetal death due to abruptio placenta.
Progress: ◆ First stage of active phase of labour.

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:

2 big cannulas
Blood sample for haemoglobin, blood grouping and X-matching (urgent)
Plan for monitoring and treatment of severe hypertensive disorders, supported by PartoMa Pocket Guide - including:

- *Magnesium sulphate*
- *Antihypertensive treatment (for instance, hydralazine)*
- *Enhance labour progression (rupture of membranes if possible)*
- *Assessment plan, including observation and treatment sheets for hypertensive disorders*
- *Start partograph*
- *Delivery within 12 hours*
-

At 11:00:
Zuwena's stillborn baby is delivered vaginally.

- Pulse 88 bpm, BP 105/70 mmHg
- Estimated blood loss: 1500 ml (and possibly more before admission)
- Uterus atonic

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:

◆ *POST-PARTUM BLEEDING*

⏳ What actions do you take?
Let the participants discuss the immediate management of post-partum bleeding, in accordance with PartoMa Pocket Guide.

✋ If time, scenario training of managing postpartum bleeding, with 3 participants stationed around an imaginary patient.

After 10 minutes of urgent management of postpartum bleeding, the bleeding decreases. Zuwena receives 2 units of blood.

⏳ What should the post-partum plan include?
Let the participants discuss. Their conclusion should focus on the following:

1. *Control Hb and possibly additional blood transfusion*
2. *Observation of patient every 15 minutes: Bleeding, BP, P, RR (see the PartoMa Pocket Guide)*
3. *Continue magnesium sulphate for 24 hours (see PartoMa Pocket Guide)*

Two days later, Zuwena is discharged in a good physical condition, but in grief after losing her child.

TAKE HOME MESSAGES

1. Blood pressure and pulse is crucial for ALL women on admission in labour
2. Both antepartum haemorrhage and severe pre-eclampsia need IMMEDIATE management during labour, in accordance with clinical guidelines
3. The common dangerous causes of vaginal bleeding in late pregnancy or in labour (APH) are abruptio placenta, ruptured uterus and placenta praevia.
4. Risks of both antepartum and postpartum haemorrhage are increased in women with hypertensive disorders
5. For the management of post-partum bleeding, you should be at least 3 people: one provides CONTINUAL UTERINE MASSAGE and check the 4 Ts, while the others take care of head and arms, respectively. Shout for help if necessary, and never leave the woman alone.

Sabra (slow labour progress, vaginal breech delivery)

📖 *Special focus on pages 7 and 10 of the* PartoMa Pocket Guide 2.0

✋ Ask one of the participants to record observations on a whiteboard-partograph

Sabra is admitted 16th June at 15:00:
Sabra is 24 years old. She is gravida 2, para 1. Her previous pregnancy and delivery were uncomplicated, and her current pregnancy has been uncomplicated as well. On admission she seems to have painful contractions, but in between she is calm. You conduct the admission assessment:

- FHR 130 bpm
- Foetal head 4/5 palpable above pelvic brim
- 3 contractions in 10 minutes, each lasting 20 seconds
- Cervix dilated 4 cm, intact membranes
- Pulse 90 bpm, BP 120/80 mmHg
- Temperature 36,7 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ *Good condition*
Baby: ◆ *Good condition*
Progress: ◆ *First stage of active phase of labour.*

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan).
Start partograph on alert line.

During the next 4 hours, FHR is not assessed.

⏳ Is this a problem? Why is it important to assess FHR every ½-1 hour?
Let the participants discuss. Their conclusion should focus on the following:
When women are admitted with a foetal heart heard, it is our responsibility to assure that they are born alive. In addition, FHR abnormalities may also be an early sign of maternal conditions (for instance, maternal infection or impending uterine rupture).

Sabra is assessed again at 19:00:
Sabra is lying in the bed nearly sleeping.

- FHR 140 bpm
- Foetal head 4/5 palpable above pelvic brim
- 2 contractions in 10 minutes, each lasting 20 seconds
- Cervix dilated 6 cm, intact membranes
- Pulse 85 bpm, BP 115/70 mmHg
- The foetal bones/caput and sutures cannot easily be felt

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ *Good condition*
Baby: ◆ *Good condition*
Labour progress: ◆ *First stage of active phase, slow progress, between alert and action lines*

- ⏳ What actions do you take?
  Let the participants discuss. Their conclusion should focus on the following:
  1. *Discuss 5 Ps to explore why the progress is poor (use the PartoMa Pocket Guide):*
     <u>Power:</u> Slow uterine activity
     <u>Pass urine:</u> She has not passed urine in the last 2 hours
     <u>Psychology:</u> She complains of being tired. Doesn't appear anxious
     <u>Passenger:</u> Assess presentation and position: UNDISCOVERED BREECH PRESENTATION!
     <u>Pelvis:</u> A rare problem. The other factors should be managed before considering this
  2. *We need to know more about the breech presentation:*
     It is a 'frank breech' (hips flexed, knees extended) with estimated birth weight 3000g (last pregnancy: SVD at term)
  3. *Plan for vaginal delivery*
  4. *Artificial rupture of membranes (buttocks are engaged), ambulation, eat & drink, pass urine, psychological support. OXYTOCIN IS NOT INDICATED BEFORE THE ACTION LINE.*
  5. *Routine assessments with FHR every 30 minutes, and next vaginal examination in 2 hours (as the alert line is crossed)*

- ⏳ What do we fear in vaginal breech delivery?
  Let the participants discuss. Their conclusion should focus on the following:
  Vaginal breech delivery is a more complicated birth, because the largest part of the baby is last to be delivered and in some cases this may be difficult. Therefore, it is crucial to be familiar with how to deliver breech.
  Important: practice with a colleague how to assist a breech delivery, so that you are ready!

The FHR is assessed 3 times within the next 2 hours:
Sabra is walking around. She has passed urine and taken food and drinks. The contractions appear to have increased.

- FHR ranges 135-150 bpm

Sabra is assessed at 21:00:
Sabra is now standing next to the bed and complains of strong contractions.

- FHR 140 bpm
- Buttocks 3/5 palpable above pelvic brim
- 4 contractions in 10 minutes, each lasting 35 seconds
- Cervix dilated 9 cm, thin meconium-stained amniotic fluid

- ⏳ What is your interpretation?
  Let the participants discuss. Their conclusion should focus on the following:
  Mother: ◆ Good condition
  Baby: ◆ Good condition (meconium in breech delivery is normal)
  Labour progress: ◆ First stage of active phase, now reassuring progress (slope is parallel to the alert line)

- ⏳ What actions do you take?
  Let the participants discuss. Their conclusion should focus on the following:
  Prepare for birth with an experienced attendant to assist vaginal breech delivery

At 22:00:

Cervix is fully dilated, and after 30 minutes, the buttocks are on the pelvic floor.

✋ Hands-on training by mannequins of vaginal breech delivery, and following the PartoMa Pocket Guide

At 22:45 Sabra delivers:

- Apgar score 7 in 1 minute and 10 in 5 minutes.
- Birth weight 3350 gram

Sabra and her baby are both well on discharge the next day.

TAKE HOME MESSAGES

1. Vaginal breech delivery is a more complicated birth, as the largest part of the baby is last to be delivered. Therefore, practice how to assist the delivery on a mannequin beforehand.
2. Particularly if previous vaginal delivery **AND** no previous caesarean section **AND n**o footling breech **AND e**stimated birthweight below 4 kilogram **AND a** health provider experienced with the procedure, vaginal breech delivery is preferred for the safety of mother and baby.
3. Artificial rupture of membranes, ambulation, pass urine, respectful caring support and eat&drink are effective and safe ways to enhance labour and should be tried prior to starting the more risk-associated oxytocin augmentation.

Rukia (pre-labour rupture of membranes, fever, induction of labour)

📖 *Special focus on pages 6 and 9 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Rukia is admitted 2nd February at 10.00:
Rukia appears tired on admission. She is Gravida 4 Para 2.
According to Rukia, she has not had any problems during pregnancy. She is at term. Previously, she has had one early miscarriage. Otherwise, her previous pregnancies were uncomplicated with uncomplicated vaginal deliveries. She seeks care as labour pain is starting.

⏳ What do you imagine that Rukia is thinking when entering the maternity ward?
Please Let the participants discuss. The importance of feeling noticed, accepted, and safe should be mentioned.

During the initial examination, you find:

- Longitudinal position, vertex presentation
- FHR 165 bpm
- Cervix 1 cm dilated
- Foetal head 5/5 palpable above pelvic brim
- 2 contractions in 10 minutes, each lasting 15 seconds
- Clear amniotic fluid
- Pulse 102 bpm, BP 135/85 mmHg

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🔶 *High pulse*
Baby: 🔶 *Non-reassuring FHR*
Labour progress: 🟢 *Latent phase of labour*

We need more information on:
How long time since rupture of membranes? (leakage for 1½ day)
Temperature (38.8 °C)

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following (see PartoMa):
Antibiotics and paracetamol
Plan for delivery within 12 hours by induction of labour
Start partograph (latent phase)

During the next 4 hours, FHR and maternal pulse is assessed twice:

- FHR 160 and 155 bpm
- Pulse 90 and 85 bpm

At 14:00:
Rukia is having strong contractions now. She is resting in between.

- You find the following:
- FHR 150 bpm
- Cervix dilated 7 cm
- Foetal head 3/5 palpable above pelvic brim

- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- 4 contractions in 10 minutes, each lasting 45 seconds
- Slight meconium
- Pulse 85 bpm, BP 120/80 mmHg
- Temperature 38,2 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: ◆ Physical condition improved
Baby: ◆ Condition improved, normal FHR
Labour progress: ◆ First stage of active phase

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Continue treatment plan and monitoring closely
Transfer to alert line on partograph

At 15:40:
Spontaneous vaginal delivery.

- Apgar score 7 in 5 min
- Birth weight 2900 g

Normal maternal vital signs and good clinical condition

⏳ What are our immediate plans for post-delivery care?
Let the participants discuss. Their conclusion should focus on the following:
Standard post-partum plan (see PartoMa Pocket Guide)
Careful assessment of maternal vital signs (continuous infection?)
Careful assessment of neonatal condition (neonatal sepsis?).

TAKE HOME MESSAGES

1. PROM and fever during childbirth are highly dangerous for mother and child
2. Remember antibiotics and paracetamol
3. High FHR may be a sign of maternal infection
4. PROM with infection is indication for labour induction and immediate delivery

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Raya (previous caesarean section, trial of scar, episiotomy)

📖 *Special focus on pages 4 and 13 of the PartoMa Pocket Guide 2.0*

✋ Ask one of the participants to record observations on a whiteboard-partograph

Raya is admitted 10th October at 22:00:
Raya is 30 years old. She is gravida 3 para 2 (living 2), and her pregnancy has been uncomplicated. Her last delivery was 3 years ago, where she had a caesarean section due to foetal distress
On admission, she is in a good condition. Raya seeks care due to labour pain. You assess the following:

- Longitudinal lie, vertex presentation
- FHR 135 bpm
- Foetal head 3/5 palpable above pelvic brim
- Cervix dilated 2 cm
- 3 contractions in 10 minutes, each lasting 20 seconds
- Membranes intact
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)
- Pulse 78 bpm, BP 130/88 mmHg
- Temp. 36,8 °C

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🔷🔶 Good condition, 1 previous scar
Baby: 🔷 Good condition
Labour progress: 🔷 Latent phase

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Admit for observation in latent phase
Special concerns for women with one previous caesarean section:
- FHR every 15-30 min throughout active labour
- Follow labour progress closely
- Do **not** use Misoprostol or Oxytocin

Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan).
Start partograph (latent phase)

At 01:00:
Raya calls you. She feels that the contractions are strong now, and she is nervous about her lower abdominal pain.You assess:

- FHR 132 bpm
- Foetal head 3/5 palpable above pelvic brim
- Cervix dilated 5 cm
- 4 contractions in 10 minutes, each lasting 30 seconds *No pain in between contractions and it seems to be normal labour pain.*
- Membranes intact
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)

- ⏳ What is your interpretation?
  Let the participants discuss. Their conclusion should focus on the following:
  Mother: ◆◆ Good condition, 1 previous scar
  Baby: ◆ Good condition
  Labour progress: ◆ First stage of active phase of labour, good progress

- ⏳ What actions do you take?
  Let the participants discuss. Their conclusion should focus on the following:
  Respectful supportive care and routine assessments (look in the PartoMa Pocket Guide together and mention the plan).
  Transfer to alert line on the partograph.

During the next 4 hours, Raya is monitored routinely. FHR is in the interval 125-135, and contractions remains like at 01:00.

At 05:00:
Raya is tired. She is lying in the bed dozing between contractions. You now assess the following:

- FHR 140 bpm
- Foetal head 3/5 palpable above pelvic brim
- Cervix dilated 7 cm
- 3 contractions in 10 minutes, each lasting 30 seconds
- Membranes intact
- Pulse 80 bpm, BP 115/80 mmHg
- The bones are separated and the sutures can be felt easily (no moulding)
- No localized scalp oedema (no caput succedaneum)

- ⏳ What is your interpretation?
  Let the participants discuss. Their conclusion should focus on the following:
  Mother: ◆◆ Good condition, 1 previous scar
  Baby: ◆ Good condition
  Labour progress: ◆ First stage of active phase, slow progress, between alert and action lines

- ⏳ What actions do you take?
  Let the participants discuss. Their conclusion should focus on the following:
  1. *Discuss 5 Ps to explore why the progress is poor (use the PartoMa Pocket Guide):*
     <u>Power:</u> suboptimal uterine activity
     <u>Pass urine:</u> She has not passed urine in the last 2 hours
     <u>Psychology:</u> She is anxious
     <u>Passenger:</u> Assess presentation and position (cephalic presentation, occiput anterior position)
     <u>Pelvis:</u> A rare problem. Other factors should be managed before considering this
  2. *It appears to be a power problem, and full bladder and anxiety might be causes. Therefore, artificial rupture of membranes (head is engaged), ambulation, eat and drink, pass urine, reassuring and respectful caring support*
     REMEMBER: OXYTOCIN IS CONTRA-INDICATED WHEN PREVIOUS SCAR
  3. *Routine assessments with FHR every 30 minutes, and next vaginal examination in 2 hours (as the alert line is crossed)*

During the next 2 hours, FHR is assessed 2 times:

- FHR ranges 130-135 bpm

At 07:00:
Raya is complaining of strong labour pain. She is feeling urge to push.

- FHR 108 bpm
- Foetal head 1/5 palpable above pelvic brim
- Cervix fully dilated
- 4 contractions in 10 minutes, each lasting 45 seconds
- Clear amniotic fluid
- The bones are separated and the sutures can be felt easily (no moulding)

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🟢🟡 Good condition, 1 previous scar
Baby: 🟡 Non-reassuring FHR
Labour progress: 🟢 Good progress, second stage of labour

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Referral to delivery room
Continual attendance of the patient with FHR assessment after each contraction
As the FHR is non-reassuring, change position and start IV Ringers Lactate
Make sure to have delivery set and ambu-bag ready for all deliveries

At 07:15:
You are attending Raya continually in the delivery room, and she is now pushing. Now you assess the following:

- FHR 104 bpm
- Foetal head 0/5 palpable above pelvic brim
- Cervix dilated 10 cm
- 4 contractions in 10 minutes, each lasting 45 seconds

⏳ What is your interpretation?
Let the participants discuss. Their conclusion should focus on the following:
Mother: 🟢🟡 Good condition, 1 previous scar
Baby: 🟡 Non-reassuring FHR
Labour progress: 🟡 Second stage, pushing

⏳ What actions do you take?
Let the participants discuss. Their conclusion should focus on the following:
Call assistance, and ask to make vacuum extractor ready (just in case)
Change position of the mother
Assess FHR again after next contraction

After next contraction:

- The head is crowning

- FHR 90 bpm

⏳ Should we now do episiotomy?
Let the participants discuss. Their conclusion should focus on the following:
No, episiotomy IS NOT routinely indicated.

Raya now delivers:

- Apgar score 5 in 1 minute, 9 in 5 minutes and 10 in 10 minutes
- Birth weight 3400 g

Raya and her baby are discharged after 8 hours, both in a good condition

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TAKE HOME MESSAGES

1. Special management of women with one previous caesarean section include: FHR every 15-30 min throughout active labour; follow labour progress closely; do **not** use Misoprostol or Oxytocin; carefully monitor contractions; be alert to constant pain, which could point towards rupture of the scar
2. Episiotomy should not be practiced routinely.

Triage station

These seven partograph cases should be laminated in A3 size, for reuse at reoccurring seminars. They each represent a bed in the maternity ward.

Four cases are needed for the triage station, which may be freely selected among the 8 cases.

The story telling begins: *"It is night at the maternity ward, and you are 1 nurse-midwife and 1 doctor taking care of these 4 labouring women. At 3 o'clock, you assess each of them..."*

Diagnosis and treatment are then discussed for each case by asking the three questions:

1. How is the mother? 2. How is the baby? 3. How is progress of labour?

Each case is then given an overall colour, for instance by colored post-its, which summarizes the level of urgency (🟢Uncomplicated; 🟡Warning; 🔴Danger).

Afterwards, management is prioritized among the four cases. This is done at both time points: 3:00 and 5:00 hours.

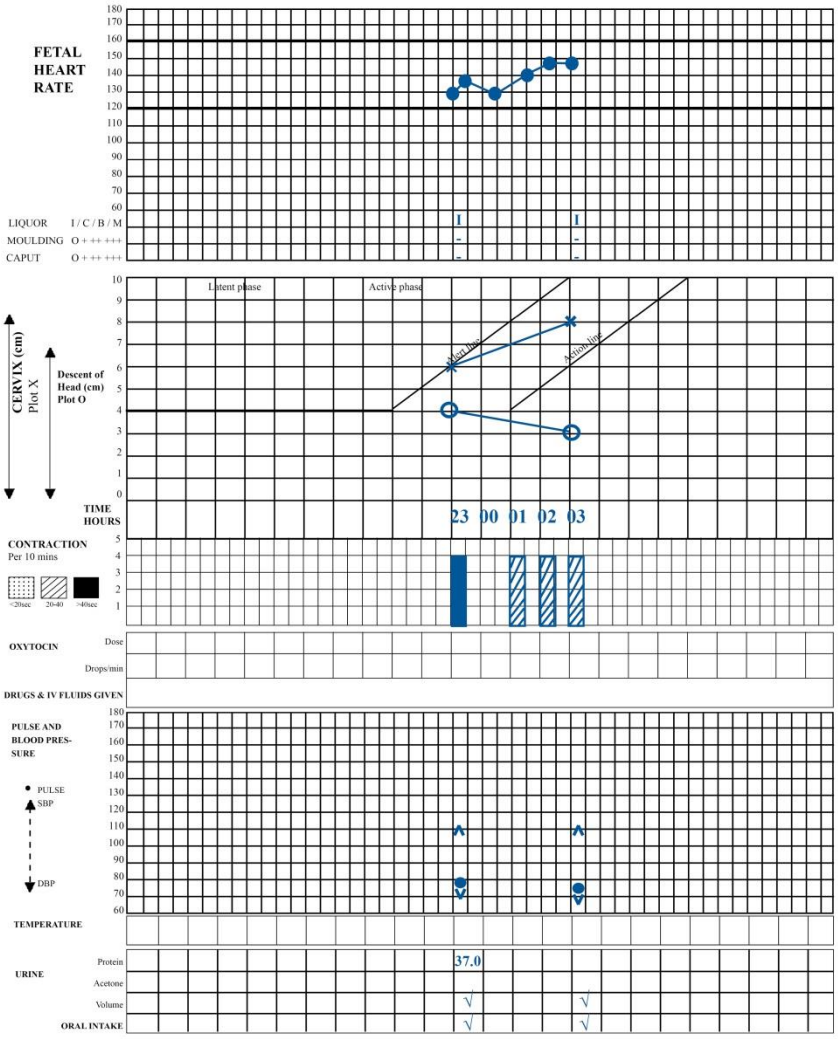
The topics are here presented:

Zainab:	At 3:00: 🟡Slow progress in first stage active phase *Discuss management in accordance with page 7 of PartoMa Pocket Guide 2.0.* At 5:00: 🟢Normal second stage of labour *Discuss management in accordance with page 3 of PartoMa Pocket Guide 2.0.*
Aisha (page):	At 3:00: 🔴Prolonged labour in first stage active phase (crossed action line with ruptured membranes) *Discuss management in accordance with page 7 of PartoMa Pocket Guide 2.0.* At 5:00: 🔴Foetal distress *Discuss management in accordance with page 5 of PartoMa Pocket Guide 2.0.*
Zuhura (page):	At 3:00: 🟡Mild-moderate pre-eclampsia *Discuss management in accordance with page 8 of PartoMa Pocket Guide 2.0.* At 5:00: 🔴Severe pre-eclampsia *Discuss management in accordance with page 8 of PartoMa Pocket Guide 2.0.*

Catherine (page):	At 3:00: ◆Postpartum, 10 minutes after birth *Discuss management in accordance with page 4 of PartoMa Pocket Guide 2.0.* At 5:00 ◆Postpartum bleeding (PPH) *Discuss management in accordance with page 15 of PartoMa Pocket Guide 2.0.*
Alyona (page):	At 3:00: ◆Foetal distress *Discuss management in accordance with page 5 of PartoMa Pocket Guide 2.0.* As Alyona's FHR is 80 bpm after 5 minutes, she goes for caesarean section. Therefore, Salma is the new patient in the bed.
Salma (page):	At 5:00: ◆Intrapartum fever *Discuss management in accordance with page 9 of PartoMa Pocket Guide 2.0.*
Barbara (page):	At 3:00: ◆Slow progress in first stage active phase *Discuss management in accordance with page 7 of PartoMa Pocket Guide 2.0.* At 5:00: ◆Prolonged labour in first stage active phase (crossed action line with signs of obstruction) *Discuss management in accordance with page 7 of PartoMa Pocket Guide 2.0.*
Diana (page):	At 3:00: ◆Normal second stage of labour *Discuss management in accordance with page 3 of PartoMa Pocket Guide 2.0.* At 5:00: ◆Prolonged second stage with foetal distress *Discuss management in accordance with pages 7 and 12 (vacuum extraction) of PartoMa Pocket Guide 2.0.*

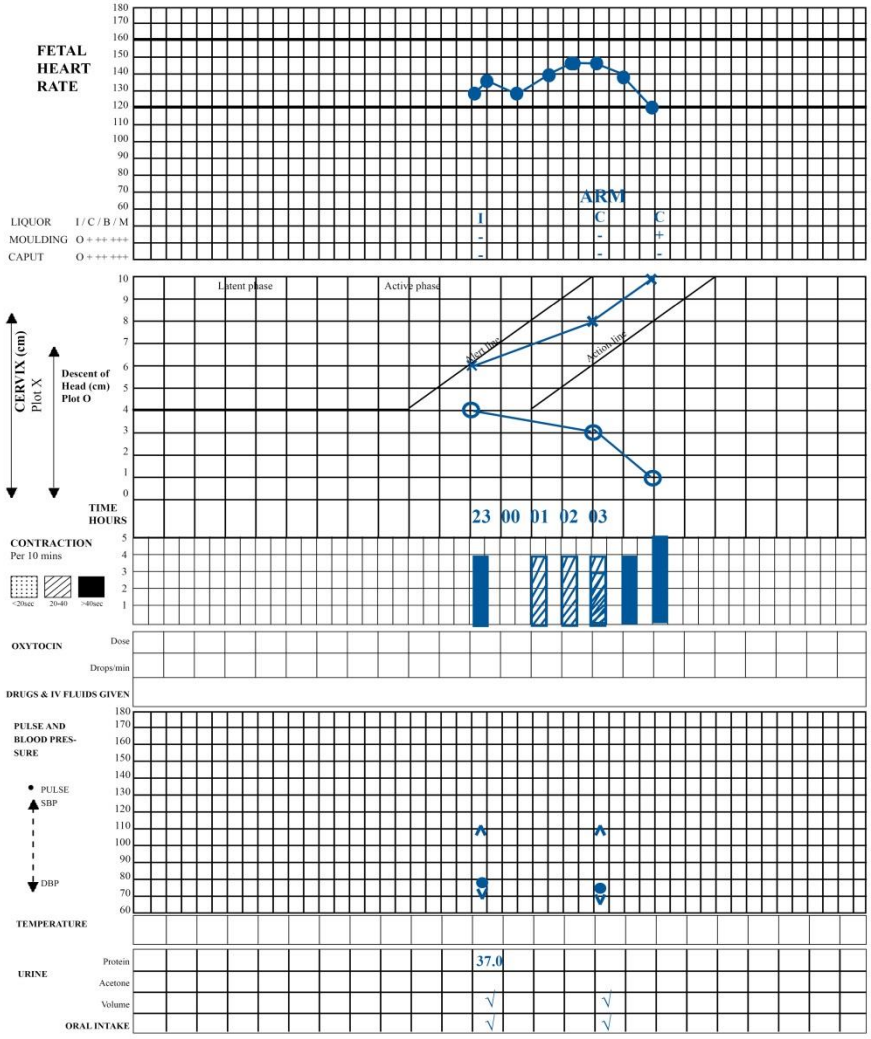
Zainab, 23 years
Gravida 1, para 0

16th June
03:00



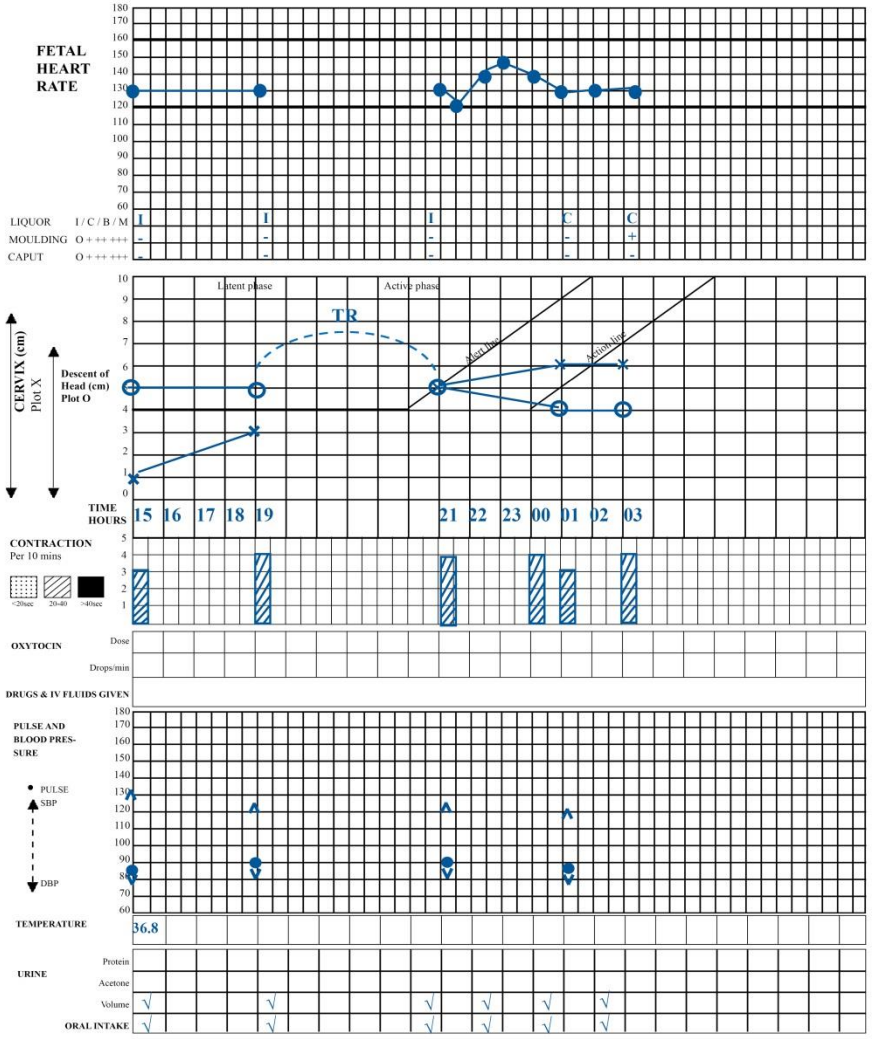
Zainab, 23 years
Gravida 1, para 0

16th June
05:00



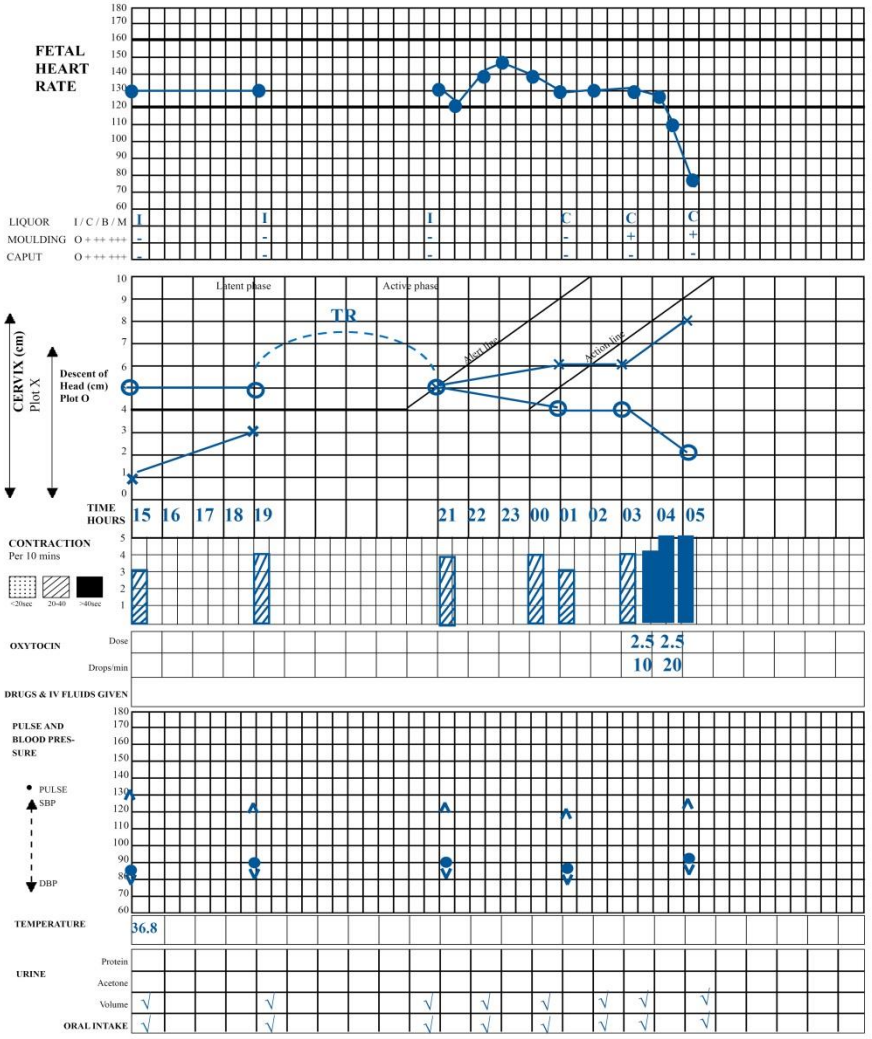
Aisha, 25 years
Gravida 1, para 0

16th June
03:00



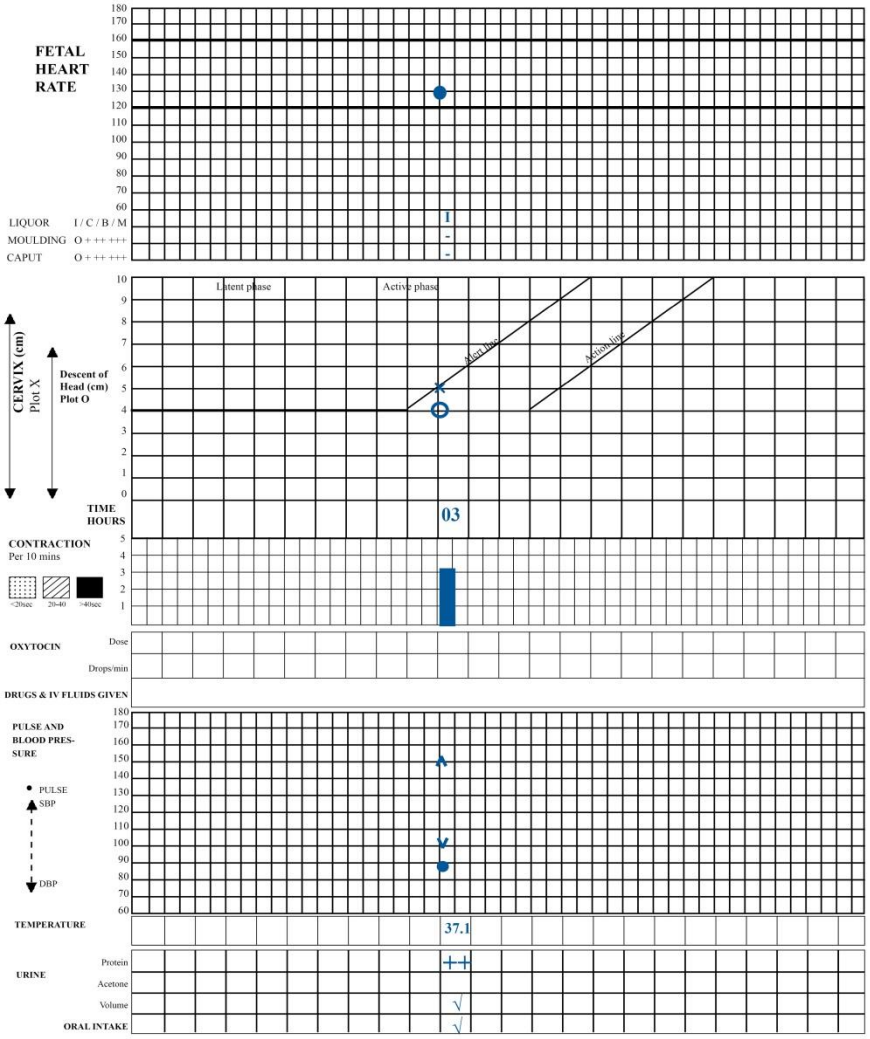
Aisha, 25 years
Gravida 1, para 0

16th June
03:00



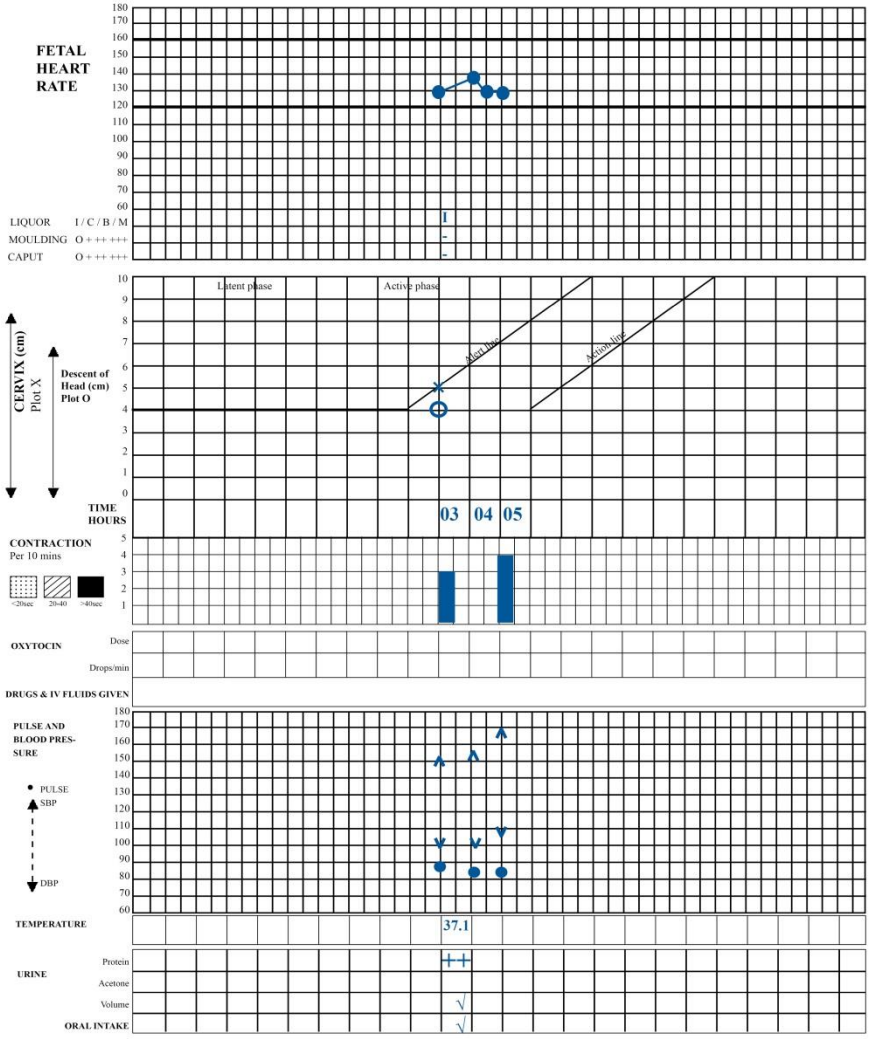
Zuhura, 20 years
Gravida 1, para 0

16th June
03:00



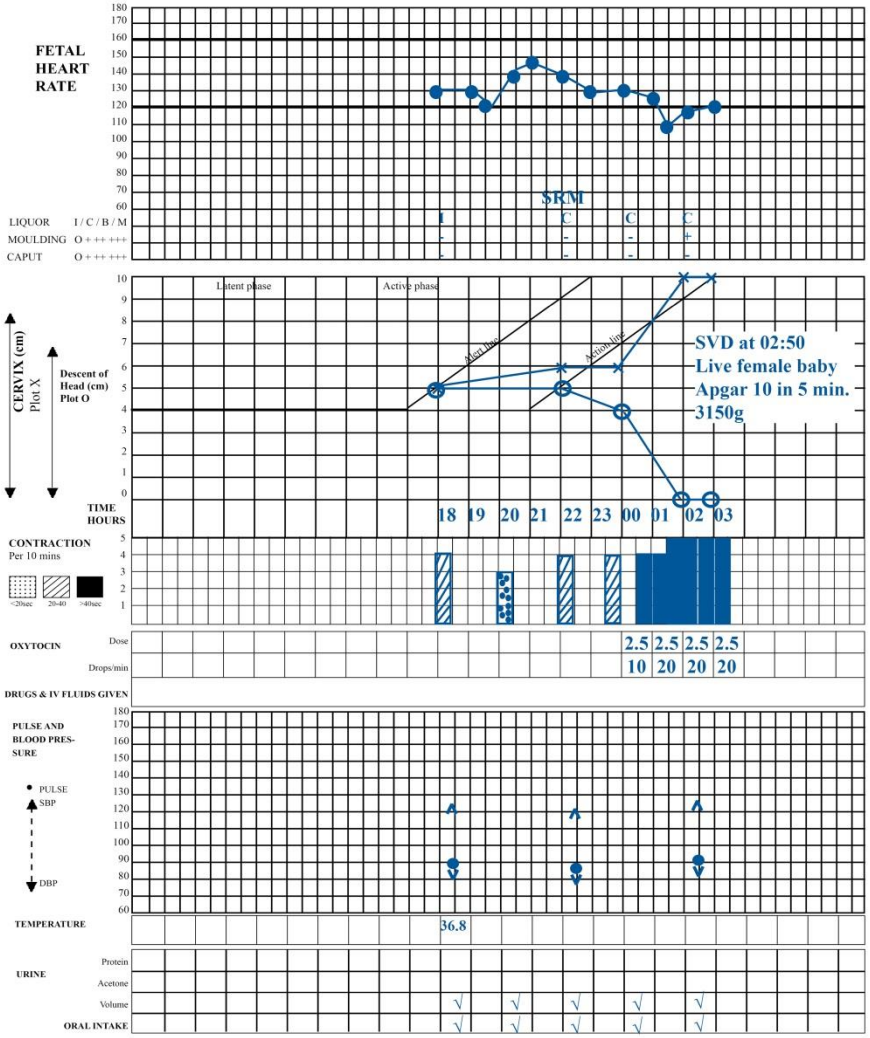
Zuhura, 20 years
Gravida 1, para 0

16th June
05:00



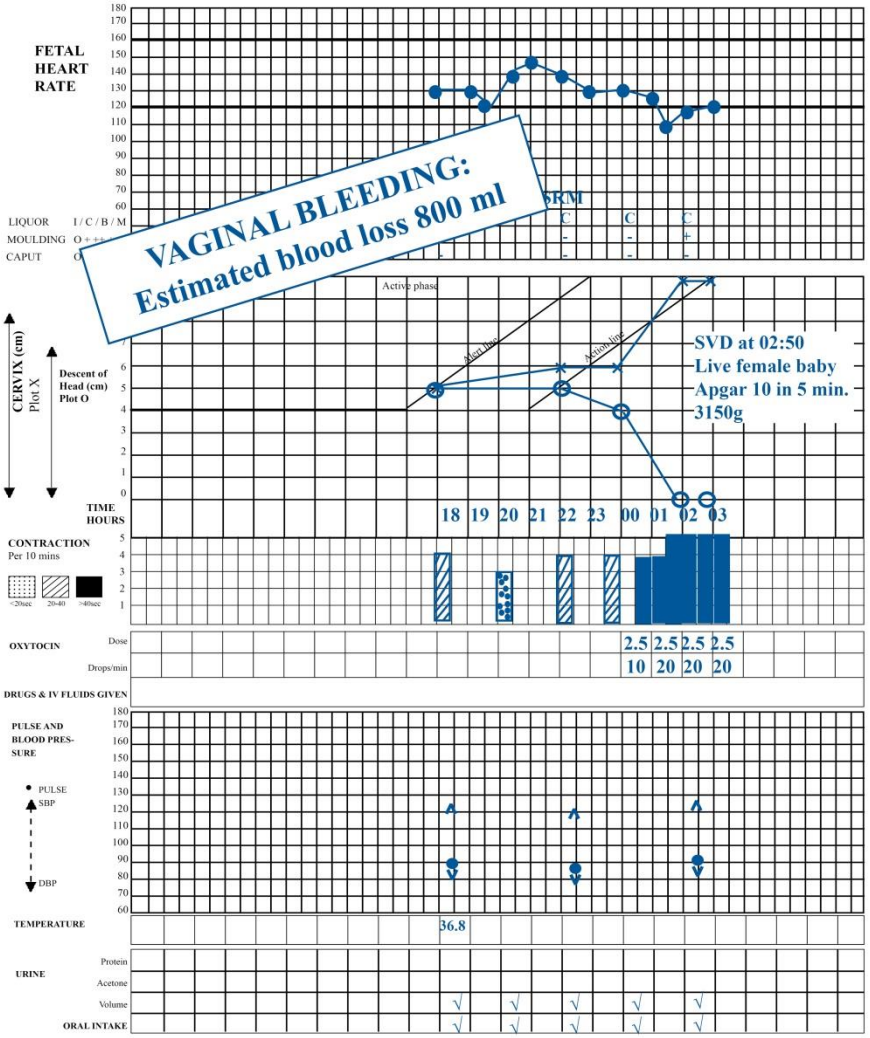
Catherine, 28 years
Gravida 2, para 0

16th June
03:00



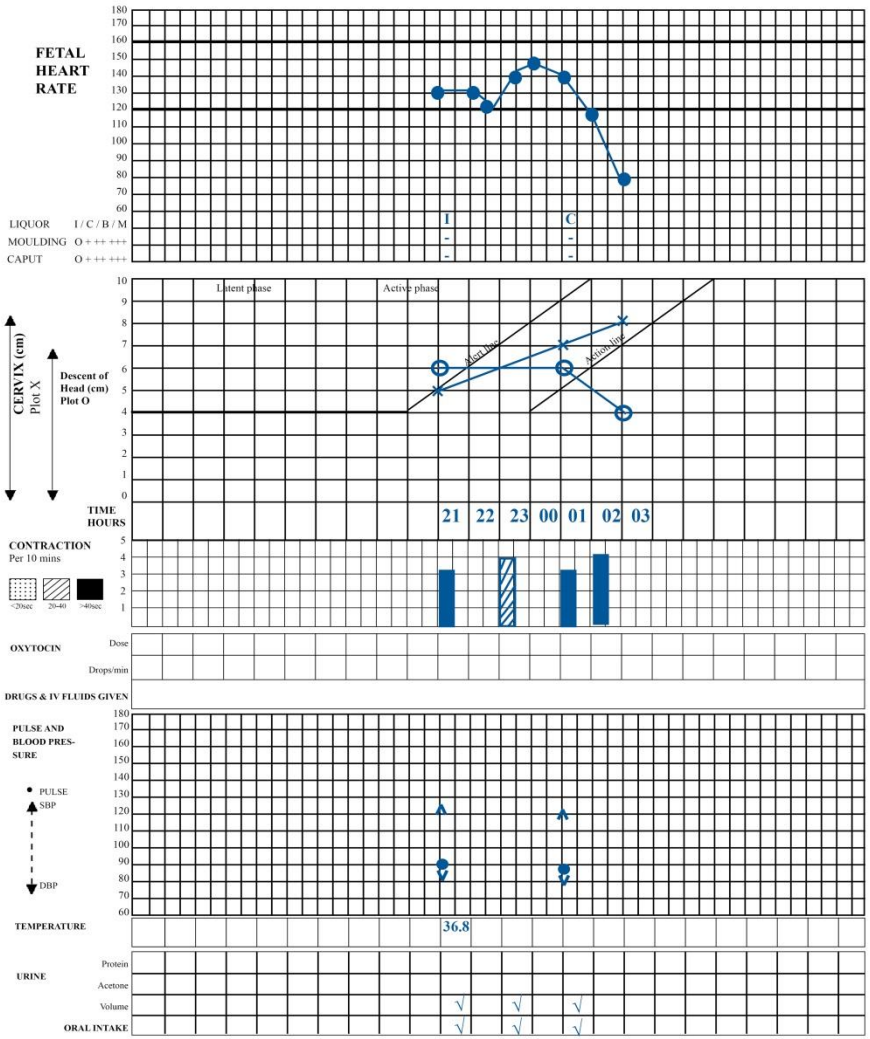
Catherine, 28 years
Gravida 2, para 0

16th June
05:00



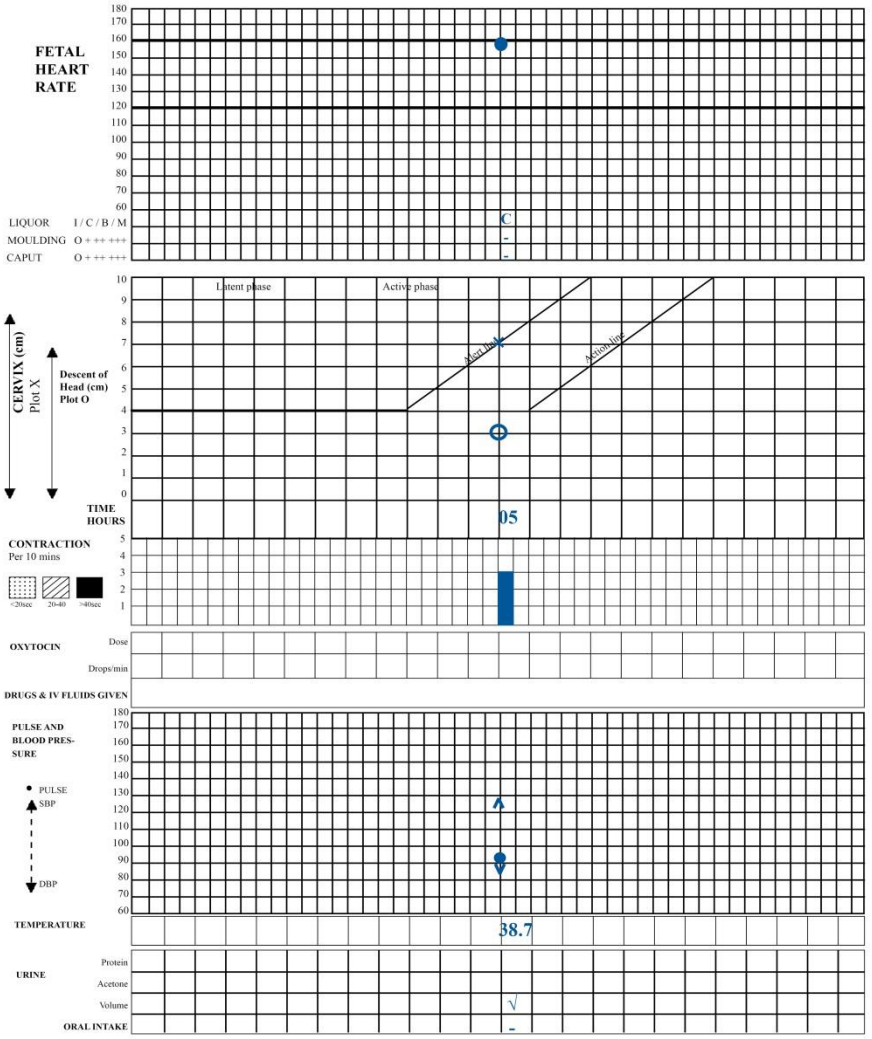
Alyona, 21 years
Gravida 1, para 0

16th June
03:00



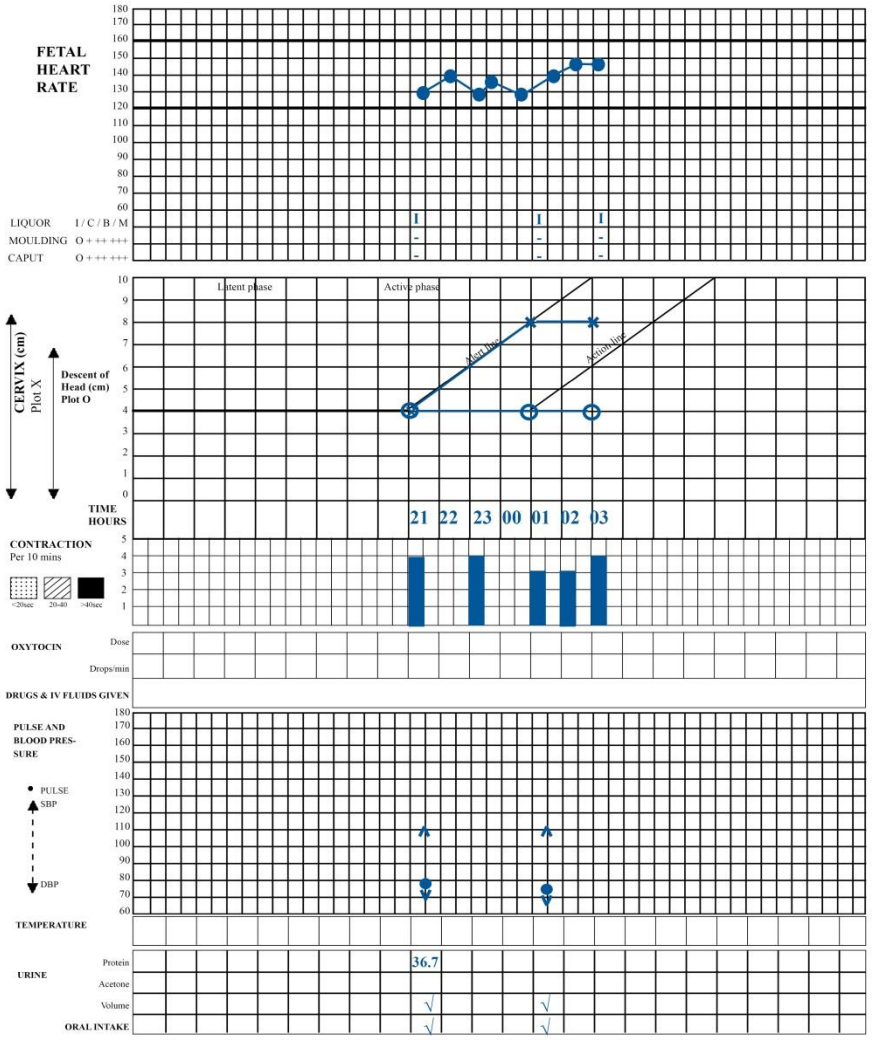
Salma **(new patient)**, 35 years
Gravida 5, para 4

16th June
05:00



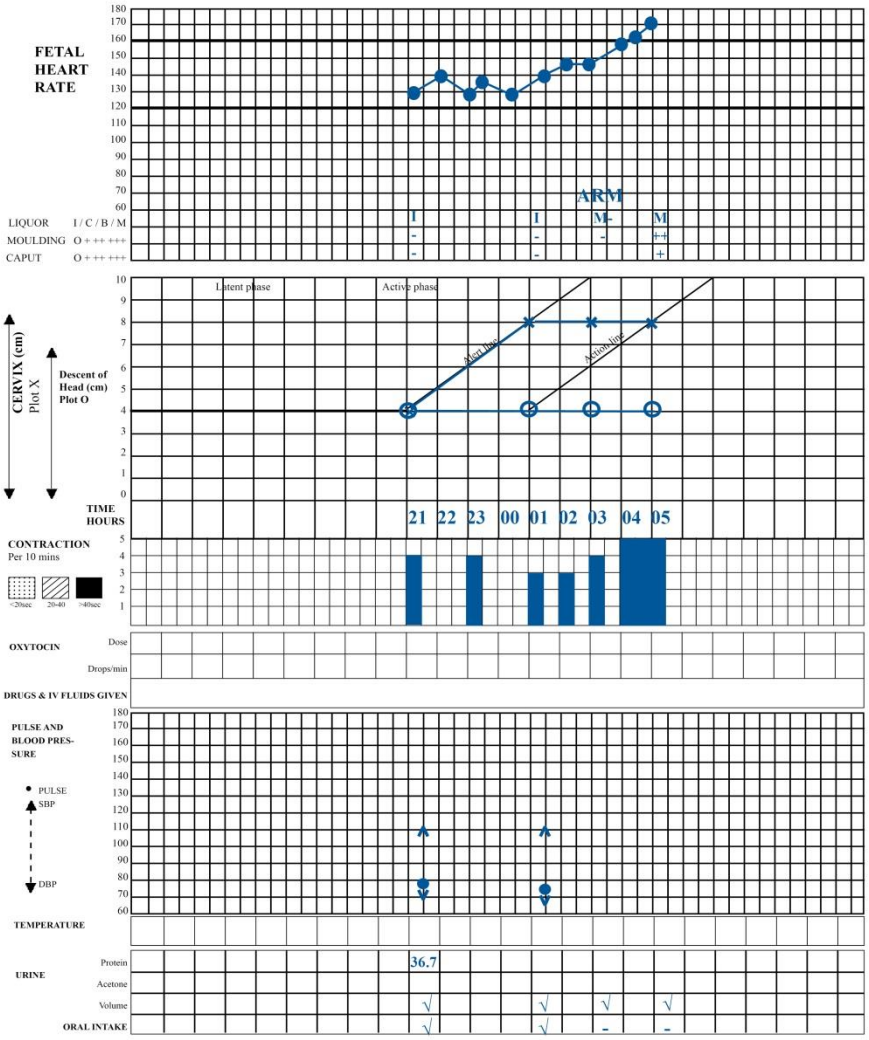
Barbara, 31 years
Gravida 3, para 2

16th June
03:00



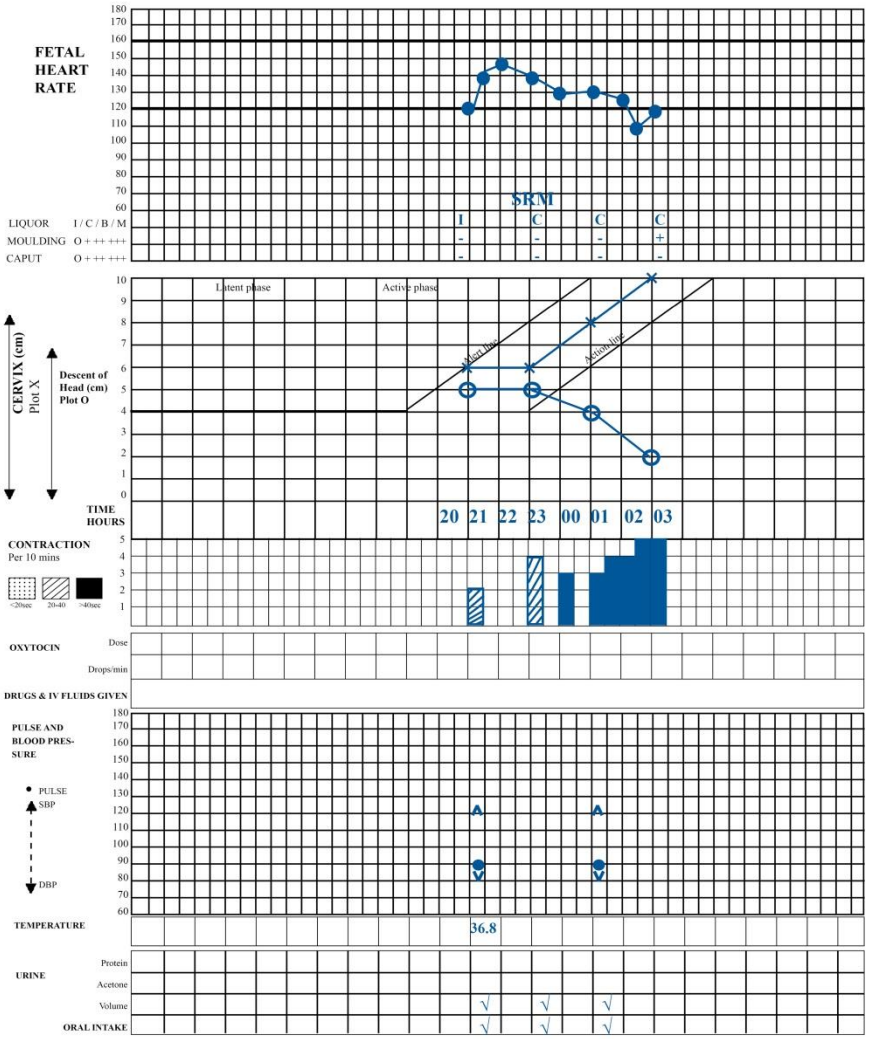
Barbara, 31 years
Gravida 3, para 2

16th June
05:00



Diana, 29 years
Gravida 1, para 0

16th June
03:00



Diana, 29 years
Gravida 1, para 0

16th June
05:00