

**INTEGRATE INFORMATION
TO ASSESS THE DELIVERY PROGRESS**

Key Question

Repeat again!

When a woman come to your health facilities,
what would you do first?

Key Question

When a woman come to your health facilities,
what would you do first?



First, a midwife should **decide** whether the woman is an **immediate referral case or not**.

Based on **Initial assessment**

Responding **immediately** to emergency for pregnant woman

Key points

- Following items should be **quickly** observed.
- If you find any **abnormal sign**, **refer** the woman immediately with proper **first aid**

Consciousness

Airway &
Breathing

Signs of shock

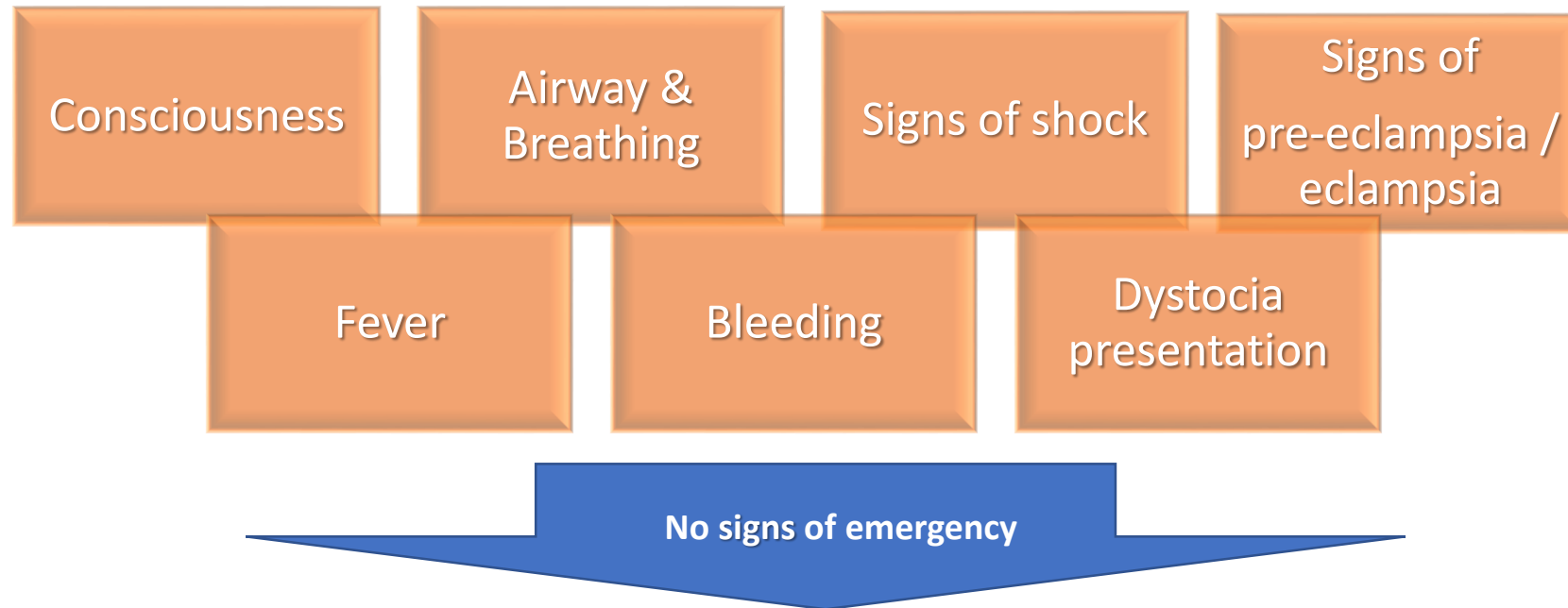
Signs of
pre-eclampsia /
eclampsia

Fever

Bleeding

Dystocia
presentation

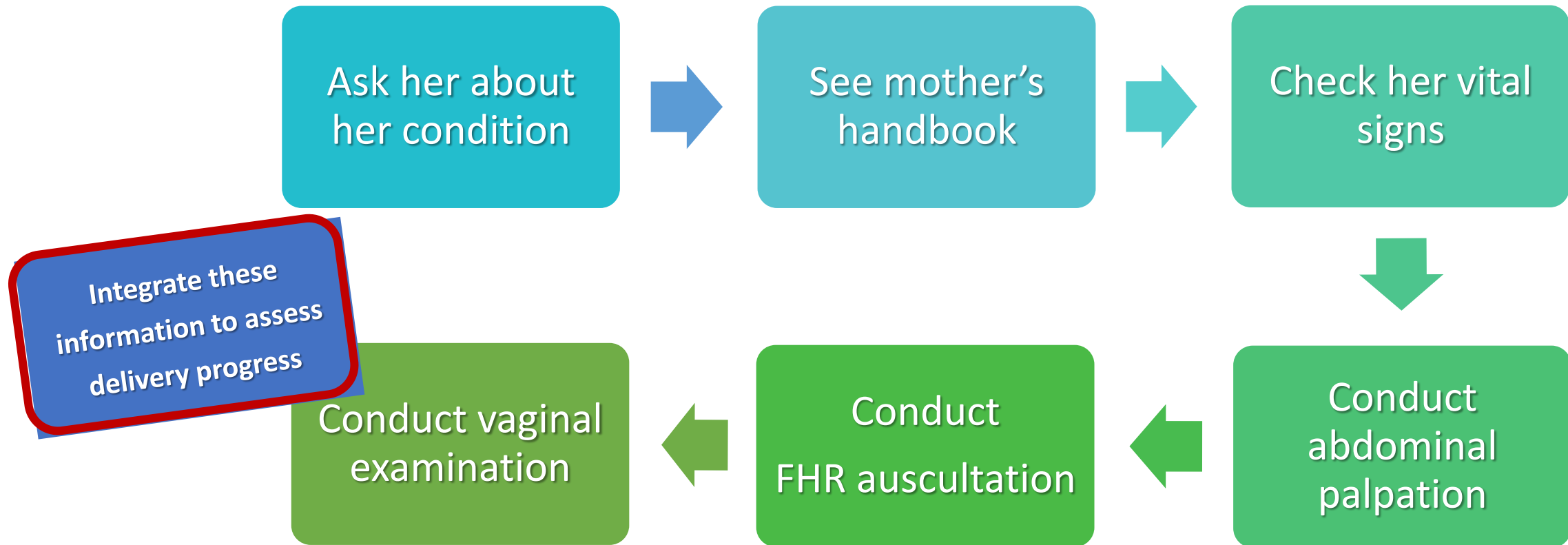
Immediate response to an emergency for pregnant woman



Next,

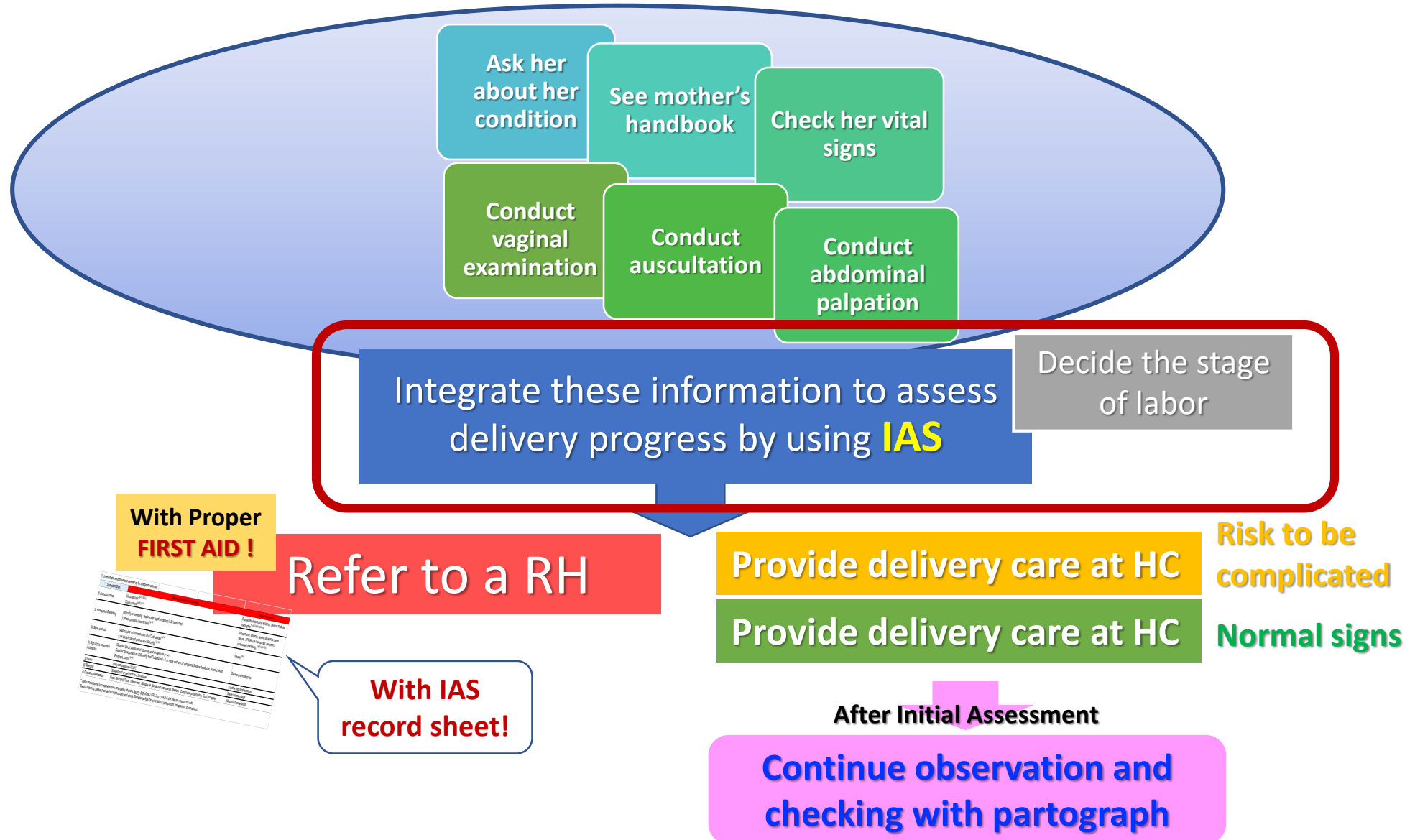
observe and check **the woman, fetus and delivery progress** to judge whether she is a referral case or not.

the general order of observation and physical examination on Initial assessment



*** The order of observation and physical examination changes according to the situation**

Overview of assessment using IAS



We will learn How to Assess the delivery progress

In General:

1- Four P (4Ps) : **Power, Passage, Passenger, and Psychology**

- 1) **Power:** uterine contraction or labour pain
- 2) **Passage:** uterine cervix, pelvis(bone), vagina, and perineum
- 3) **Passenger:** baby (shape and size)
- 4) **Psychology:** mental condition

2- **Four stages of labor** : based on cervical dilatati

➤ **4Ps** should be assessed in every stage (and phase) of labour.

< Definition of stages and phases of labour >

Stage	Phase	Definition
First	Latent	From the onset of labour, until 3cm (≤3cm) of cervical dilatation
	Active	From more than 3cm (>3-10cm) of cervical dilatation, until full dilatation of cervix
Second		From full dilatation of cervix, until birth of baby (expulsion of foetus)
Third		From birth of baby, until expulsion (delivery) of placenta
Fourth		From expulsion of placenta, until two hours

1. 4P : Power, Passage, Passenger, and Psychology

(1) **Power**: a force to push out the baby from uterus to our world

(**Uterine contraction or labor pain**)

- Duration
- Frequency
- Intensity (Strength)

(2) **Passage**: the way from uterus to outside of maternal body

- Pelvis (bone)
- Uterine cervix
- Vagina
- Perineum

(3) **Passenger**: the baby her/himself (shape and size)

- Proportion between the Passage and the Passenger is always important.

(4) **Psychology**: mental condition of mother

- If the mother has fear or anxiety, **oxytocin** will be decreased.

Then, uterine contraction becomes weak.

2. Decide the stage of labor

Summary

- Stages of labour consist of four: *First, Second, Third and Fourth.*
- The **first stage** of labour is divided into two phases: **latent and active.**
- **Cervical dilatation** (in centimeter) is an indicator to determine the stage and phase, however, **regular uterine contraction (labor pain)** should be accompanied with the dilatation.
- Cervical dilatation itself does **NOT** indicate the onset of labour.

Even it is dilated, delivery has not started without regular uterine contraction.

3. Practice of assessment of delivery progress:

(1) Power

- There are 3 important components:
 - . **Duration:** count the duration of **one uterine contraction in seconds**
 - . **Frequency:** count **the number of uterine uterine contractions in 10 minutes**
 - . **Intensity (Strength):** observe the woman's **reaction** to uterine contraction and feel the **firmness of abdomen**.
- The characteristics of each component changes gradually according to the stage of labour. **Touching (palpation) is important.**

< Changes of characteristics of uterine contraction >

Stage of labour	Duration	Frequency	Intensity
(prelabour)	up to 30 seconds	once in 15-20 minutes	Weak (sometimes subtle)
1 st stage / Latent phase	between 20 and 40 seconds	gradually increases: from once or twice contractions, to 4 or 5 per 10 minutes	Weak to moderate
1 st stage / Active phase	up to 60 seconds	up to 5 contractions per 10 minutes	Moderate to intense
2 nd stage	around 60 seconds	<i>ditto</i>	Intense

➤ **Progress varies by every pregnant woman.**

Cautions! Abnormal uterine contraction

- **'Too weak'** (too short (up to 30 seconds) /too less (0 or one time))per 10 minutes) :
 - can be **false-labour (prelabour)** stage.
 - **DO NOT** confuse with 'prolonged latent phase”.
- **'Too strong'** (too long (more than 1 minute or continuous) / too frequent (6 times or more per 10 minutes))
 - can be **DPPNI (Abruptio placenta); uterine rupture or pre-rupture;** or inappropriate use of **medicine** (oxytocin, misoprostol, traditional herbal medicine, etc.)
 - Evaluate immediately fetal and maternal status.

3. Practice of assessment of delivery progress (Cont.):

(2) Passage: the pathway from uterus to the outside

- **Pelvis:** the most important passage (shape and size)
 - deformity may be a barrier to normal birth
- **Uterine cervix:** dilated and effaced (measured by finger)

1) Dilation

- ✓ monitoring other components of 4Ps is necessary if the dilation is not sufficient.

2) Effacement: length of cervix

3. Practice of assessment of delivery progress (Cont.):

(3) Passenger: the baby tries to adapt the head to the shape of pelvis,
going with inlet into pelvic canal and descent of the head

Monitoring points:

- 1) **Flexion**: bending a head forward
- 2) **Rotation**: process to adapt the head to pelvic canal
- 3) **Moulding**: the mechanism to make the fetal head smaller by alteration in shape
- 4) **Caput succedaneum**: a swelling/edema of the scalp by external pressure

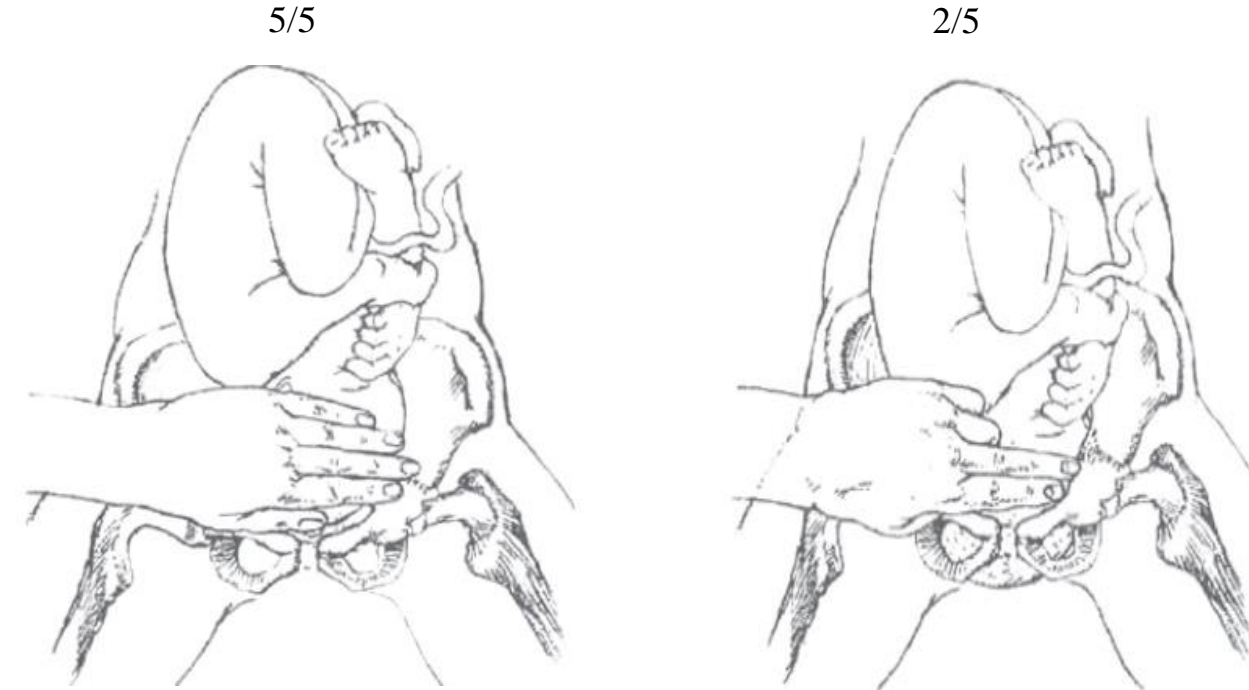
4. Measurement of fetal head descent

Abdominal method to assess descent of the fetal head:

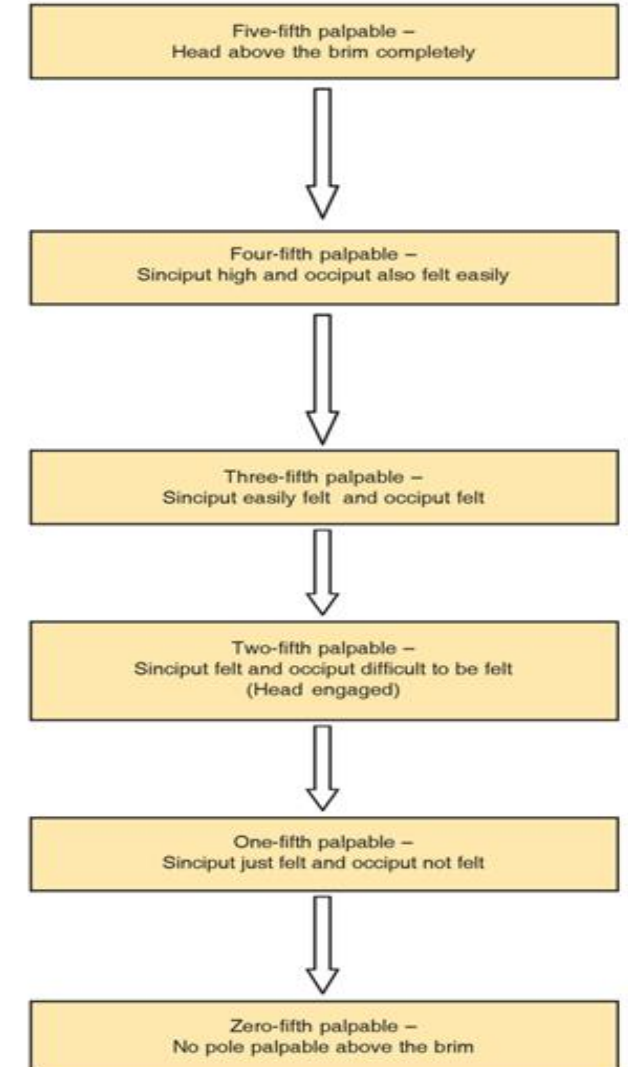
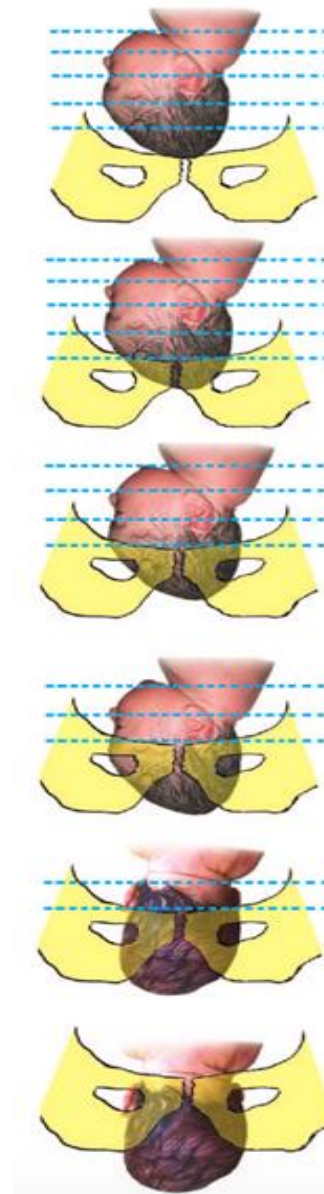
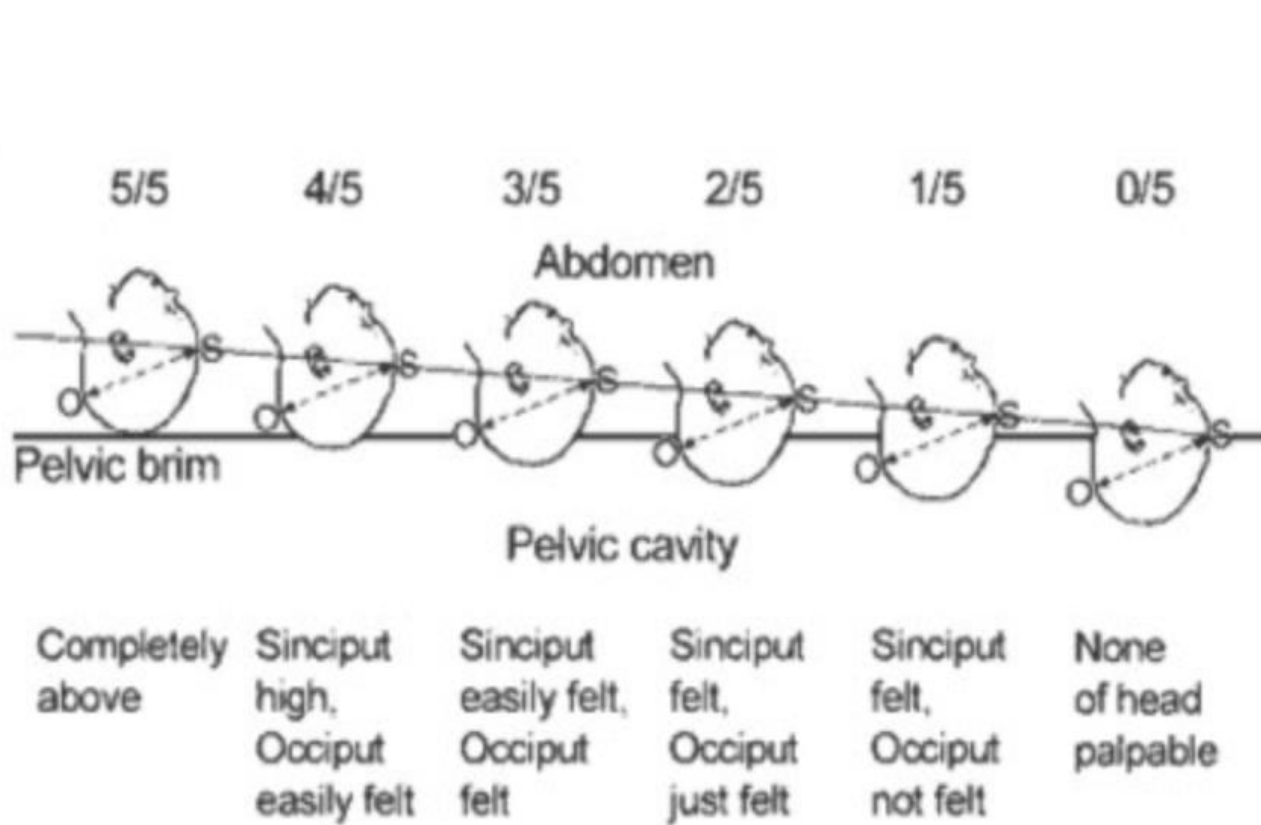
✧ by **abdominal palpation with fingers** by placing the radial margin of finger above the **symphysis pubis** (which is anterior brim of pelvis) pressed in

terms of **fifths above the brim** like **5/5, 4/5, 3/5, 2/5, 1/5, or 0/5**.

✧ The points to be confirmed are: the entire head, '**sinciput**' and '**occiput**'.



4. Measurement of fetal head descent



- The points to be confirmed are: the entire head, 'Sinciput (S)' and 'Occiput (O)'.

5. Assessment of duration of labour

< Criteria of duration of labor in the latent and active phases in the first stage >

Phase	Duration of labor	Prolonged labor
Latent	8 hours (Confirm if real OR false labor pain!)	more than 8 hours in the latent phase (Confirm if real OR false labor pain!)
Active	At least 1cm of cervical dilatation per hour	less than 1cm of dilatation during the active phase

6. Conditions to be considered

- After initial assessment, continuous monitoring will be necessary using **partograph** if the labor has started.
- Please remember '**Passenger**' and '**Passage**' are always in relative relationship.
- ✓ We cannot evaluate the progress of labor with one-point assessment.
After initial assessment, please continue regular monitoring according to the time chart.

Observation Time chart

In Latent phase

4. Observe Fetal condition	Normal	Risk to be complicated *
Listen Fetal Heart Rate	Every 30 min ^{1(p59)}	Every 15 min ^{1(p88)}
Amniotic fluid (if rupture just now)	Check immediately	
Amniotic fluid (if ruptured)	Every 4 hours (At Vaginal examination) ^{1(p60)}	
5. Assess the delivery progress	Normal	Risk to be complicated *
Cervical dilatation by Vaginal examination	Every 4 hours ^{1(p59)}	
Fetal Descent	Every 4 hours (Before Vaginal examination)	
Uterine contraction (frequency, duration, strength)	Every 1 hour ^{1(p59)}	
6. Observe maternal condition	Normal	Risk to be complicated *
Vital sign (Blood Pressure, Pulse, Body Temperature)	Every 2 hours ^{1(p59)}	Every 1 hour ^{4(p22), 1(p.22-24)}
Bleeding	Every 4 hours (At Vaginal examination) ^{6(p341)}	

In active phase

4. Observe fetal condition	Normal	Risk to be complicated *
Listen Fetal Heart Rate	Every 30 min ^{1(p60)}	Every 15 min ^{1(p88)}
Amniotic fluid (if rupture just now)	Check immediately	
Amniotic fluid (if ruptured)	Every 4 hours (At Vaginal examination) ^{1(p60)}	
5. Assess the delivery progress	Normal	Risk to be complicated *
Cervical dilatation by Vaginal examination	Every 4 hours ^{1(p60)} + more according to woman's condition	
Fetal Descent	Every 4 hours (Before Vaginal examination) ^{1(p60)}	
Uterine contraction (frequency, duration, strength)	Every 30 min ^{1(p60)}	
Moulding	Every 4 hours (At Vaginal examination) ^{1(p60)}	
6. Observe maternal condition	Normal	Risk to be complicated *
Vital sign (Blood Pressure, Pulse, Body Temperature)	Every 2 hours ^{1(p61, 62)}	Every 1 hour ^{4(p22), 1(p.22-24),2(D23)}
Bleeding	Every 4 hours (At Vaginal examination) ^{6(p341)}	

THANK YOU

In Second stage of labor

4. Observe foetal condition	Normal	Risk to be complicated *
Listen Fetal Heart Rate	Every 5 min ^{1(p67)}	Every contraction ^{1(p88), 2(D14)}
5. Assess the delivery progress	Normal	Risk to be complicated *
Fetal Descent	Observe every pushing	
Uterine contraction (frequency, duration, strength)	Every 10 min ^{1(p67)}	
6. Observe maternal condition	Normal	Risk to be complicated *
Vital sign (Blood Pressure, Pulse, Body Temperature)	Every 5 min ⁷	
Bleeding	Every 5 min	

Assessment of the delivery progress

LOOK! LISTEN! FEEL!				
5. Assess the delivery progress				
5.1. Decide the stage of labor				
Cervical dilatation	≤3cm	Latent phase (5.2)		
	>3-10cm	Active phase (5.3)		
	Full dilatation	Second stage (5.4)		
5.2. Latent phase				
	Normal sign	Risk of being complicated	Abnormal / complicated / emergency	Reason for referral
1) Fetal descent -Palpation	≤3/5	4/5 - 5/5 ^{4(p22)} [floating]		
2) Uterine contraction				Excessively strong pain Suspected placental abruption ^{1(p36)} , ruptured uterus ^{1(p36, 37)}
a. Frequency	≤3 times in 10mins	4 - 5 times in 10 mins	≥6 times in 10mins	
b. Duration in seconds for each contraction	20 - 40 seconds	>40 seconds	Constant pain	
c. Strength	no constant pain, have a time to rest		Tenderness, quite hard	
3) Duration of latent phase	≤8 hours		≥8 hours	Suspected prolonged latent phase
5.3. Active phase				
	Normal sign	Risk of being complicated	Abnormal / complicated / emergency	Reason for referral
1) Fetal descent -Palpation	≤2/5 [start engagement]	3/5	4/5 - 5/5 ^{4(p22)} [floating]	(Red) Suspected CPD, abnormality of rotation, malpresentation and malposition (Yellow) Risk of prolonged active phase
2) Uterine contraction				Excessively strong pain Suspected abruptio placenta ^{1(p36)} , ruptured uterus ^{1(p36,37)}
a. Frequency	3 to 5 times in 10 mins		≥6 times in 10 mins	
b. Duration in seconds for each contraction	20 to 60 seconds	>60 seconds	Constant pain	
c. Strength	no constant pain, have a time to rest		Tenderness, quite hard	
3) Molding	(0) - (+) ^{1(p60)}	(++) with engagement ¹	(++) without engagement (+++) ^{OR} Caput succedaneum without engagement	Suspected CPD ^{1(p60)} , Risk of prolonged active phase
5.4 Second stage				
	Normal sign	Risk of being complicated	Abnormal / complicated / emergency	Reason for referral
1) Fetal descent	Perineum begins to thin, stretch and bulge with contraction, head is visible ^{1(p67, 68)}	Caput succedaneum	Molding (+++)	Suspected CPD ^{1(p60)} , Risk of prolonged labour
2) Uterine contraction				Excessively strong pain Risk of ruptured uterus Excessively strong pain Risk of ruptured uterus
a. Frequency	4 - 5 times in 10 mins		≥6 times in 10 mins	
b. Duration in seconds for each contraction	around 60 seconds	>60 seconds	Constant pain	
c. Strength	no constant pain, have a time to rest		Horizontal ridge across lower abdomen ^{1(p37, 53, 55)} quite hard	Risk of ruptured uterus
3) Duration of pushing before the admission	<45 mins (Primipara) <30 mins (Multipara)	45 mins (Primipara) ^{3(p46)} 30 mins (Multipara) ^{3(p46)}	>60 mins (Primipara)* ^{3(p46)} >30 mins (Multipara)* ^{3(p46)} *with poor fetal descent, severe molding, signs of fetal distress	Suspected obstructed labor and fetal distress

Assessment of the delivery progress

(Decide the stage of labor by checking Cervical dilatation)

5.1. Decide the stage of labor

Cervical dilatation	$\leq 3\text{cm}$	Latent phase (5.2)
	$>3-10\text{cm}$	Active phase (5.3)
	Full dilatation	Second stage (5.4)

Assessment of the delivery progress (Latent phase)

5.2. Latent phase				
	Normal sign	Risk of being complicated	Abnormal / complicated / emergency	Reason for referral
1) Fetal descent -Palpation	$\leq 3/5$	$4/5 - 5/5^{4(p22)}$ [floating]		
2) Uterine contraction				
a. Frequency	≤ 3 times in 10mins	4 - 5 times in 10 mins	≥ 6 times in 10mins	Excessively strong pain Suspected placental abruption ^{1(p36)} , ruptured uterus ^{1(p36, 37)}
b. Duration in seconds for each contraction	20 - 40 seconds	>40 seconds	Constant pain	
c. Strength	no constant pain, have a time to rest		Tenderness, quite hard	
3) Duration of latent phase	≤ 8 hours		≥ 8 hours	Suspected prolonged latent phase

Assessment of the delivery progress (Active phase)

5.3. Active phase				
	Normal sign	Risk of being complicated	Abnormal / complicated / emergency	Reason for referral
1) Fetal descent -Palpation	≤2/5 [start engagement]	3/5	4/5 - 5/5 ^{4(p22)} [floating]	(Red) Suspected CPD, abnormality of rotation, malpresentation and malposition (Yellow) Risk of prolonged active phase
2) Uterine contraction				
a. Frequency	3 to 5 times in 10 mins		≥6 times in 10 mins	Excessively strong pain Suspected abruptio placenta ^{1(p36)} , ruptured uterus ^{1(p36,37)}
b. Duration in seconds for each contraction	20 to 60 seconds	>60 seconds	Constant pain	
c. Strength	no constant pain, have a time to rest		Tenderness, quite hard	
3) Molding	(0) - (+) ^{1(p60)}	(++) with engagement	(++) without engagement (+++) OR Caput succedaneum without engagement	Suspected CPD ^{1(p60)} , Risk of prolonged active phase

Assessment of the delivery progress (Second stage)

5.4 Second stage				
	Normal sign	Risk of being complicated	Abnormal / complicated / emergency	Reason for referral
1) Fetal descent	Perineum begins to thin, stretch and bulge with contraction, head is visible ^{1(p67, 68)}	Caput succedaneum	Molding (+++)	Suspected CPD ^{1(p60)} , Risk of prolonged labour
2) Uterine contraction				
a. Frequency	4 - 5 times in 10 mins		≥6 times in 10 mins	Excessively strong pain Risk of ruptured uterus
b. Duration in seconds for each contraction	around 60 seconds	>60 seconds	Constant pain	Excessively strong pain Risk of ruptured uterus
c. Strength	no constant pain, have a time to rest		Horizontal ridge across lower abdomen ^{1(p37, 53, 55)} quite hard	Risk of ruptured uterus
3) Duration of pushing before the admission	<45 mins (Primipara) <30 mins (Multipara)	45 mins (Primipara) ^{3(p46)} 30 mins (Multipara) ^{3(p46)}	>60 mins (Primipara)* ^{3(p46)} >30 mins (Multipara)* ^{3(p46)} *with poor fetal descent, severe molding, signs of fetal distress	Suspected obstructed labor and fetal distress