December 2022

Helping Mothers Survive

Prolonged & Obstructed Labor

Provider Guide – Part 1 of 2: Assessment

FIGO International Federation of Gynecology and Obstetrics the Global Voice for Women's Health

International Confederation of Midwives Strengthening Midwifery Globally

UNFPA

American Academy of Pediatrics DEDICATED TO THE HEALTH OF ALL CHILDREN®

jhpiego Saving lives. Improving health. Transforming futures.

Saving Lives at Birth

Helping Mothers Survive (HMS) and Helping Babies Survive (HBS) are learning modules that address critical care needs for women and newborns. By building the capacity of the health workforce to provide care before, during, and after birth, needless deaths can be prevented. Targeting providers at all levels who attend births or who are called upon to manage complications, HMS and HBS equip frontline health workers to provide evidence-based, high-quality care and to promptly identify and manage life-threatening complications.

Understanding that care for women and babies must be integrated for the best possible outcomes, HMS and HBS both use hands-on, interactive approaches. Modules include team-based learning, skills practice, and simulation with immediate practice and feedback. Each module utilizes low-dose, high-frequency (LDHF) interactive learning followed by repeated, team-based practice at the worksite to strengthen and maintain skills.

The HMS Prolonged & Obstructed Labor (P&OL) training module is designed for teams of providers who care for women at birth. These include skilled birth attendants such as midwives, nurses, and doctors, and those who assist them.

HMS P&OL helps providers master the competencies needed to safely and effectively detect and manage prolonged/obstructed labor, shoulder dystocia, malpositions/ presentations and breech births. The P&OL module is designed as a 2-day onsite training.

The materials for this module include:

1. **Action Plan -** a teaching tool and graphic job aid that help providers identify and manage labor that is not progressing. This includes identifying whether labor is prolonged due to ineffective contractions or if labor is prolonged due to obstruction.

2. **Flip Charts 1 and 2** are used for instruction and can be a reference after initial training.

3. **Provider Guides 1 and 2** are for both facilitators and learners. They contain information for ongoing practice and more in-depth information. After training, learners will continue to practice new or refreshed skills led by onsite peer coordinators. Recognizing that any learner can potentially coordinate practice after initial training, this Provider's Guide contains information for everyone.

Provider Guides:

- Help you provide the best care for women and babies at birth.
- Help facilitate weekly practice with peers at your facility after training day. Peer practice exercises start on page 41 of Provider's Guide 2, the activities last from 20 to 60 minutes once a week for up to 9 weeks.
- Give you more information and resources to maintain your skills.

When you put into practice the skills you learn in P&OL, you can help save even more lives!

Acknowledgments

Jhpiego is an international, nonprofit health organization affiliated with Johns Hopkins University. For nearly 50 years, Jhpiego has empowered frontline health workers by designing and implementing effective, low-cost, hands-on solutions to strengthen the delivery of health care services for women and their families. By putting evidenced-based health innovations into everyday practice, Jhpiego works to break down barriers to high-quality health care for the world's most vulnerable populations.

The Helping Mothers Survive Prolonged & Obstructed Labor module was conceived and co-developed by a team in the Technical Leadership Office of Jhpiego and the American College of Obstetricians and Gynecologists.

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We express our sincere gratitude to our partners and colleagues around the world who work with us to reduce the needless deaths of women and their babies. We would like to give special thanks to those who provided guidance in the development of these materials, the the International Federation of Gynecology and Obstetrics (FIGO), International Confederation of Midwives (ICM), the United Nations Population Fund (UNFPA), and the American Academy of Pediatrics (AAP). We wish to thank our partner colleagues in Tanzania who supported testing of these materials.

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Helping Mothers Survive - Prolonged & Obstructed Labor

Provider Guide

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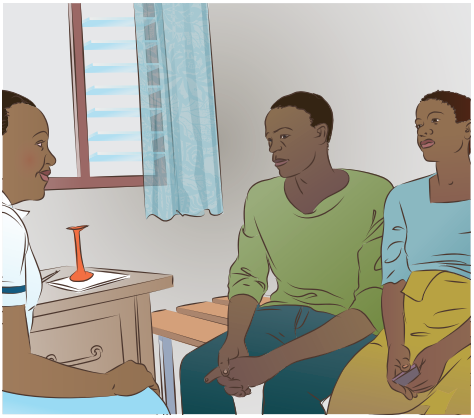
Provide respectful care



Key Knowledge

During a complication, RMC also involves being a calming presence. Remember to:

- Make eye contact.
- Speak calmly and directly to the woman.
- Get close to her head and speak softly.
- Validate her experience; she may be very emotional and hard to reach.

Key Actions

Respect the woman's right to information, informed consent, and respect her choices and preferences, including refusal of medical procedures

- Provide clear, easily understood information about what is happening and what her options are.
- Always obtain oral or written consent before providing care.
- If the woman has declined a procedure for herself or her newborn, make sure she has understood the benefits and risks of declining it. Document this in the record.
- Even when a woman has declined a procedure, continue to provide quality, respectful care.

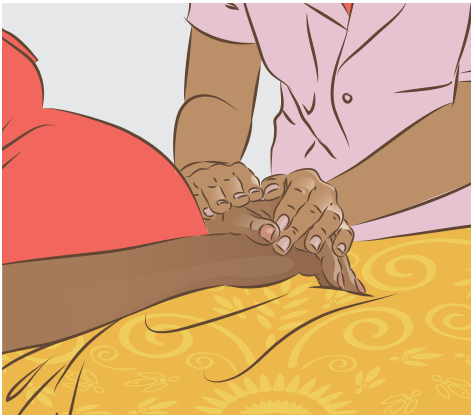
Respect the woman's right to privacy and confidentiality

- Only share the woman's or her newborn's personal or medical information with the woman's consent.
- When giving information to another provider to assure continuity of care, make sure that only those providers needing the information can hear.

Protect a newborn's right to be with the parents or guardians

- Keep the woman and her baby together at all times.
- Do not separate the newborn from the mother without the mother's consent.
- Monitor and provide care for the baby in the presence of the mother, even during skin-to-skin if possible.
- If the newborn is small or premature, keep the baby with the mother at all times.
- If the baby is in a special care nursery, make sure the woman has access to her baby.

Provide emotional support



Key Knowledge

Women who are having complications may find it hard to talk to the provider and explain the problem. It is the responsibility of the entire team to speak with the woman respectfully and put her at ease.

Key Actions

When a woman, her fetus, or her newborn are experiencing a complication:

- Listen to what she and her family have to say and encourage them to express their concerns; try not to interrupt.
- Respect the woman's sense of privacy and modesty by closing the door or drawing curtains.
- Let the woman know that you are listening to be sure you understand.
- Answer the woman's questions directly and in a calm, reassuring manner. Tell the woman and family as much as you can about what is happening. Often a simple explanation so they understand what is happening and what to expect can calm their fears and prepare them for what will happen next.
- Be honest. Do not hesitate to admit what you do not know. Maintaining trust matters more than appearing knowledgeable.
- Make sure the woman and her companion understand the information you have provided and ask if they have any further questions.

Communication

Key Knowledge

- Effective communication is important when caring for any woman in labor, but it is even more important if there are complications. Good communication helps build and maintain strong relationships between providers and their clients, providers and their colleagues, and between supervisors and staff.

- When providers are not communicating effectively, patient safety is at risk because:
  - critical information may not be shared
  - information may not be understood
  - orders may be unclear
  - the right care may not be given
  - changes in status may be missed

Key Actions

- You will need to communicate with:
  - Clients and family regarding admission, treatment, explaining problems and selfcare instructions
  - Providers regarding patient management, resuscitation and emergency care and during hand overs.
  - Other departments such as pharmacy, laboratory, imaging, operating theater, intensive care unit
  - Providers at other facilities for patient transfer.

- Women say they have a positive experience, regardless of outcome if they:
  - feel free to make their own choices, even when things do not happen as they expect
  - feel safe and cared for
  - feel connected to providers, family and their babies
  - feel they are being treated with respect
  - understand what happened
  - understand that they could not fully control what happened during labor and childbirth and that complications are not their fault

- When there is a problem, communicate quickly with members of your team so they can help quickly.
  - Always communicate with respect.
  - Communicate confidently and clearly with team members - do not assume others know what you are thinking.
  - Provide clear, concise information about the woman's condition to others who will assist in her care.
  - Identify team members, including team lead, and clearly establish roles for each member when dealing with emergencies and preparing for transport.
  - Know whom to call if you need a medical consultation or transfer.
  - Communicate with the hospital before transporting the woman to reduce wait times and assure safe care.

EXERCISE

Commmunication

SCENARIO 1:

Ms. M. only speaks Arabic and Dr. A. speaks poor Arabic. Dr. A. uses his poor Arabic to inform Ms. M. that she needs a cesarean birth because her labor is obstructed. Ms. M. thinks Dr A. was giving her cesarean birth as an option but that it was not required so she declines surgery. Ms. M's fetus dies and Ms. M. now has a fistula.

How could you improve communication in this case that resulted in unsafe care?

SCENARIO 2:

Ms. N. has hypertension and after birth has a postpartum hemorrhage. When the doctor comes in to help the midwife manage the emergency, he does not read the medical record and the midwife does not tell the doctor about Mrs. N's hypertension. The doctor gives ergometrine by IV injection and Ms. N. has a stroke.

How could you improve communication in this case that resulted in unsafe care?

SCENARIO 3:

Ms. O. has a uterine infection during labor. The junior midwife calls a senior midwife to help her manage. The junior midwife forgets that the woman has a penicillin allergy and the senior midwife does not read the medical record or ask the woman about allergies. The senior midwife gives ampicillin 2 g IV PLUS gentamicin 5 mg/kg body weight IV. Mrs. O goes into anaphylactic shock.

How could you improve communication in this case that resulted in unsafe care?

Actively make decisions to quickly manage problems

Key knowledge

While caring for a woman in labor, you must actively make decisions to quickly manage problems and improve outcomes.

Each time you assess or **check** the woman, fetus, and labor progress you will need to **record** your findings, **compare to alert *values***, and then develop a care **plan** based on findings and shared decisions with the woman.

Key Actions

After you check a woman during routine monitoring or when she presents with a problem, you must record findings, and compare findings to alert values to help you decide:

- Which signs or symptoms are not normal?
- If findings are not normal, what is the most likely diagnosis (e.g. infection, pre-eclampsia, anxiety or others)?

After comparing findings with alert values, explain to the woman and her companion what plan of care you think she needs:

- Does she need emergency care?
- What care does she need, both immediate and ongoing care?
- Do you need to call a senior provider or doctor to help manage her care?

If you can manage her care in your facility but need help:

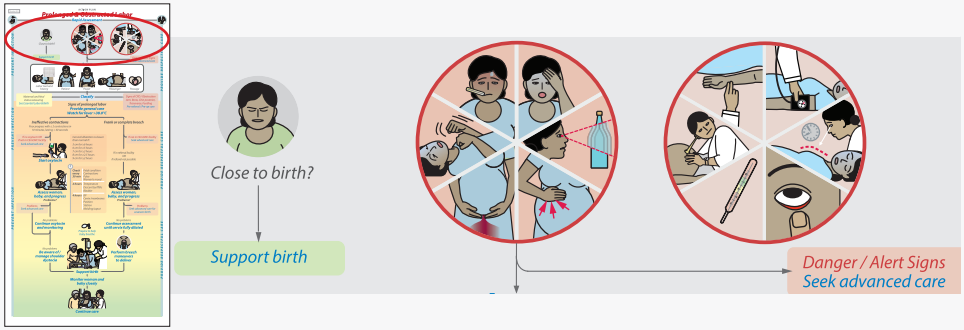
- Whom do you need to call?
- How long will it take before the other provider arrives?

Can you manage her care at your facility or do you need to transfer her?

If you need to transfer her to another facility:

- Where will you transfer her?
- How long will it take to get her there?
- What do you need to make sure that you can transport her there safely, continue monitoring her and the fetus, and provide care for her problem before and during transport?
- Can you safely transfer her before she gives birth?

Rapid Assessment



Key knowledge

Quickly do a rapid assessment to identify problems and decide if she needs urgent care or if you need to do additional assessments. Remember that a woman may have several problems at the same time and that you need to manage all of them.

Do a rapid assessment if you receive a woman from another facility OR you think she has a problem OR you are taking over her care.

Greet her, listen carefully to the report provided by the provider who is referring her, and rapidly assess her to decide if she needs emergency treatment.

Signs of shock:

- Fast, weak pulse (110 beats per minute or more) OR
- Low blood pressure (systolic less than 90 mmHg)

A woman with shock may also have:

- Rapid breathing - over 30 breaths per minute or more
- Pale skin, especially around the inner eyelids, mouth, or palms
- Sweating, or cold and clammy skin
- Changes in mental state: anxiety, confusion, or unconsciousness
- Scanty urine output - less than 30 mL per hour.

Checklist

☐ Welcome the woman and introduce yourself.

☐ Explain that you will do a rapid assessment so you know how she, her baby, and her labor are doing.

☐ Wash your hands or use hand rub.

☐ Ensure privacy and confidentiality.

☐ Check if she is grunting or wanting to push, suggesting that she is close to giving birth.

☐ Is she afraid or anxious or having trouble coping?

☐ Check if she has any danger signs:
- vision problems
- severe headache
- convulsions/unconscious
- epigastric pain
- high fever
- bleeding
- severe pain
- other problems or concerns

☐ Check if her vital signs are normal and for signs of shock:
- Maternal pulse (normal: 60-100 beats per minute)
- Temperature (normal: less than or equal to 38 °C)
- Systolic BP (sBP) (normal: 90–139 mmHg) and diastolic BP (dBP) (normal: 60–89 mmHg)
- Respirations (normal: between 12 and 20 breaths per minute)

☐ Look for signs of anemia:
- Look at her conjunctiva and palms for pallor.

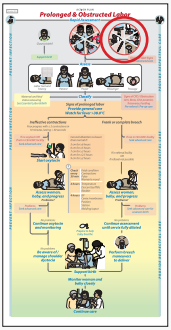
☐ Look for signs of dehydration:
- See if she has sunken eyes or dry mouth.
- Pinch the skin of her forearm to see if it goes back slowly.

☐ Check the FHR (normal: 110-159 bpm):
- Locate the baby's back.
- Listen for a full minute between contractions.
- If FHR is <110 bpm, compare it to the maternal pulse to make sure you are not hearing her pulse.
- If you are unsure, ask another provider to check the FHR.

☐ Based on findings, decide:
- If birth is close, prepare for birth.
- Does she have danger or alert signs that need urgent care?
- Are there additional assessments you need to do?
- Is advanced care needed?

☐ Share findings with the woman and her companion.

Manage abnormal FHR



Key knowledge

- A **normal fetal heart rate** may slow during a contraction but usually recovers to normal as soon as the uterus relaxes.

- A **very slow fetal heart rate** (<100 bpm) in the absence of contractions or persisting after contractions is suggestive of fetal distress.

- A **rapid fetal heart rate** (≥160 bpm) may be a response to maternal fever, chorioamnionitis, drugs causing rapid maternal heart rate (e.g. terbutaline or ritodrine), or hypertension.

  Always check for signs/symptoms of **chorioamnionitis** when there is maternal fever and/or a rapid FHR: abdominal or uterine tenderness, foul smelling vaginal discharge or amniotic fluid, rapid maternal HR >100 bpm. Other signs may include chills or light vaginal bleeding.

Decelerations in FHR

- **Check FHR for a full minute during a contraction and for 30-60 seconds after the contraction ends to see:**

1. When the FHR begins to decrease in relation to the contraction
2. When the FHR returns to baseline in relation to the contraction

- Causes for a slow FHR include head compression during rapid descent and pushing, hypoxia, acidosis, heart block, or umbilical cord compression. At the end of second stage, the FHR may drop during pushing.

There are three types of decelerations:

- **Early deceleration:** The FHR lowers below baseline usually at the start of a contraction, reaches the lowest point (nadir) at the peak of the contraction, and then increases after the peak of a contraction.
  Pressure on the fetal skull alters the cerebral blood flow and this in turn stimulates the vagus nerve. The heart rate is gradually decreased as the pressure of the contraction intensifies, and the deceleration gradually resolves as the pressure resolves.

- **Variable decelerations:** The timing of low FHR and return to baseline in relation to the contraction is variable.
  - Umbilical cord compression is typically responsible for this pattern in the first stage of labor, it may also result from head compression during the second stage of labor.
  - Variable decelerations are classified as

severe when they **last more than 60 seconds, fall below 70 beats/min, or have a drop of 60 beats/min below the baseline rate.**

- **Late deceleration:** The FHR lowers below baseline usually **after** the peak of a contraction.
  - These decelerations are associated with a greater degree of hypoxemia and fetal distress.
  - The cause of late decelerations is uteroplacental insufficiency (UP I) due to: uterine hyperactivity; maternal hypotension, hypertensive disorders; chorioamnionitis; placental abruption, placenta previa; maternal diabetes, anemia, cardiac disease, smoking; IUGR, post-term gestation; Rh isoimmunization

Checklist

When the FHR is less than 110 or 160 bpm or higher - you must act quickly!

☐ Make sure you have an accurate measurement of FHR:
- Compare it to the maternal pulse to make sure you are not hearing the maternal pulse
- If you are unsure, ask another provider to check the FHR.

☐ Prop up the woman or place her on her left side.
☐ Stop oxytocin if it is being given.
☐ Give oxygen 4–6 L.
☐ Give fluids by mouth or IV.
☐ Check gestational age of the fetus. Preterm fetus is associated with fetal tachycardia.
☐ Check for a maternal cause and treat any identified conditions:

- Infection with fever; vaginal bleeding; maternal dehydration; uterus not relaxing between contractions or hyperstimulation with oxytocin
- Medications the woman is receiving that may affect the FHR (oxytocin, terbutaline)

☐ If a maternal cause is not identified, perform a vaginal examination to check for prolapsed cord or imminent birth.

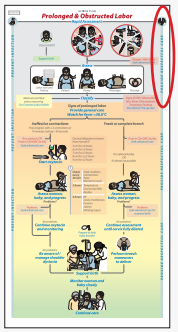
☐ After 5 minutes, check FHR for a full minute during a contraction and for 30 seconds after the contraction ends to evaluate if your management has improved the FHR.
- If there is no improvement, seek advanced care at a facility capable of performing a cesarean birth.
- If there is improvement, continue the same treatment and continue to evaluate the FHR.
- If the FHR remains abnormal for 10 minutes or longer or does not improve after maternal position change / maternal interventions or the baby's heartbeat drops below 100 during a contraction and remains low for one minute after the contraction, you should make a plan to help the baby!!

☐ Inform the woman of your findings and address her concerns.

Alert signs:
- The FHR remains abnormal for 10 minutes or longer or
- The FHR does not improve after maternal position change / maternal interventions or
- The FHR drops below 100 during a contraction and remains low for one minute after the contraction

If no fetal heart rate

Provide counseling



Key knowledge

If you do not hear a fetal heart beat:

- Ask others to listen.
- Use a Doppler stethoscope, if available.
- Confirm the absence of a heart beat by ultrasound, if available.

Key Actions

Counselling should be provided:

- **At the time of diagnosis**
  - Once fetal death has been confirmed, the mother/parents should be informed in person, as soon as possible, in an empathetic and straightforward manner, in surroundings where they can react privately. Make sure the woman is not alone and, if possible, make it possible for a religious leader/priest to be present to support and provide counselling to the parents prior to the baby's birth/death or to pray with family/bless baby after birth.
  - Provide information in clear and simple language. You may need to repeat it.
  - Make it very clear that there is nothing the woman did, ate or did not do that caused the fetal death.
  - Be aware of and respect parents' individual and changing emotional needs. Validate emotions. Continuity of caregivers is helpful.
  - Discuss what parents can expect. Where will the woman give birth and where will she be cared for after? Explain how the baby may look and what will happen to the baby.
  - Provide options for labor, birth and post-partum procedures and care.
- **At birth and immediately postpartum**
  - Treat the baby with respect.
  - Respect the parents' preferences about seeing and holding the baby. Seeing the stillborn is proof of the baby's birth, existence, and death. Holding the baby helps in the grieving process.
- **Postpartum**
  - After birth, examine the fetus and placenta and explain the findings to the parents. Only provide information on cause of death is one is known.
  - Consider placing a symbol or similar marker on the door or at the woman's private space to denote that the parents have suffered a stillbirth.
  - Help the parents collect items that may help with grief such as photographs, hand and footprints, locks of hair, hospital wristband.
  - Provide information about referrals to psychologists, social workers, counselors, and organizations that the parents can contact if and when they want.
  - Provide information about: how to manage breast engorgement, registration of the death and funeral preparation, contraception, when to expect results of testing, and future pregnancies.

Interventions for abnormal findings

	Normal findings	Findings indicating there may be a problem	Emergency - seek advanced care!
Information from Rapid Assessment and history			
Maternal heart rate	**Less than 100 bpm**	**100-120 bpm** • Recheck between contractions. • If still elevated, check maternal BP, temperature, uterus for tenderness, amniotic fluid, bleeding, signs of dehydration, and signs of fear or anxiety. • Treat any identified maternal conditions (fear/anxiety, infection, bleeding, dehydration) • If all vital signs and bleeding are normal and maternal pulse still more than 100 bpm, orally hydrate and recheck in 1 hour.	**More than 120 bpm** • Evaluate the woman for fear and anxiety, infection, dehydration, and bleeding • Evaluate the woman for shock • Treat any identified maternal conditions • Start IV • Give oxygen • Seek advanced care
Blood pressure	**sBP 90–139 mmHg** **dBP 60–89 mmHg**	**BP 140-160/90-110 mmHg** • Recheck between contractions with woman lying on her side. • If BP still elevated, check urine for protein and assess for signs/symptoms of severe pre-eclampsia (SPE) (including lab tests) • Re-check BP at least every 2 hours until birth.	**BP more than 160/110 mmHg** • Recheck between contractions with woman lying on her side • If BP still more than 160/110 mmHg, check urine for protein and assess for signs/symptoms of SPE (including lab tests) • Give anti-hypertensives • Give MgSO4 if SPE • If birth is imminent, seek advanced care after birth • Otherwise, seek advanced care immediately
		Systolic BP less than 90 mmHg • Recheck between contractions with woman lying on her side. • If systolic less than 90 mmHg, check maternal pulse, temperature, if bleeding more than bloody show, for signs/ symptoms of shock • Treat any identified maternal conditions • If no signs/symptoms of shock, bleeding, or infection, increase fluids by mouth or by IV • Re-check BP at least every 2 hours until birth	**Systolic BP less than 90 mmHg with signs/symptoms of shock and/or vaginal bleeding** • Treat any identified maternal conditions, including shock • Start IV • Seek advanced care.

Temperature	**Less than or equal to 38°C**	**More than 38°C** • Check maternal pulse, amniotic fluid, and uterus for signs of infection; check for signs / symptoms of shock and other potential causes of fever (e.g. uterine, urinary tract or respiratory infection; malaria; etc.) • Check for and treat dehydration, if present (see below) • If amniotic fluid is clear and normal smelling and there are no other signs of infection, give 1 liter clear fluids and paracetamol to lower the temperature • If available, send blood for complete blood count and cultures, do rapid malaria test, check urine for infection • Give antibiotics for chorioamnionitis and manage other causes of maternal fever • Re-check temperature 1 hour after intervention	**More than 38°C with signs/ symptoms of shock** • Treat any identified maternal conditions, including shock • Start IV • Seek advanced care.
Signs of dehydration	**Mucous membranes are moist; when pinched, the skin returns quickly**	**Signs of dehydration: dry skin and mouth, dry lips, swollen tongue, dizziness, thirst, the skin returns very slowly when pinched, lethargy, decreased urine output, low BP/ orthostatic hypotension, acetone/ketones + or more:** • Evaluate the woman for signs/symptoms of infection. • Test urine for acetone. If acetone in urine ++, encourage the woman to eat or drink; otherwise, treat with IV fluids (500. mL over 30 minutes; evaluate BP, pulse, and signs of dehydration after every bolus; do not give more than 4 boluses – 2L) • Encourage the woman to keep hydrated during labor and while pushing	
Maternal ability to cope **Response to labor and childbirth**	**The woman is reacting to pain and uncertainty with some distress, but is able to communicate and still in control of her behavior (level of discomfort and effort required are moderate)**	**Woman's ability to cope is not within normal range** • Rule-out labor complications • Provide supportive care • Ensure the presence of a companion of the woman's choice • Work with the companion of the woman's choice to provide support • Provide pain relief as needed • Re-evaluate labor 2 hours after providing maternal interventions	

Fetal heart rate	**110-159 beats per minute (bpm)**	**100-109 bpm / More than 160 bpm** • Prop up the woman or place her on her left side. Stop oxytocin if it is being given. Give oxygen 4–6 L. Give fluids (by mouth or IV). • Check maternal vital signs, amniotic fluid, and uterus for signs of infection; check for vaginal bleeding; check for signs of maternal dehydration; check contractions (More than five contractions in 10 minutes, or if any contraction lasts longer than 60 seconds / Continuous uterine contractions that do not allow the uterus to relax / Constant pain that persists between contractions or is sudden in onset / Contractions cease altogether) • Review any medications the woman is receiving that may affect the fetal heart rate (oxytocin, terbutaline) • Treat any identified maternal conditions such as fever • Recheck in 5 minutes between contractions. • If a maternal cause is not identified and the fetal heart rate remains abnormal throughout at least three contractions, perform a vaginal examination to check for explanatory signs of distress: If the cord is below the presenting part or in the vagina, manage as prolapsed cord • Make sure the laboring woman is not in a supine position.	**Less than 110 bpm / 160 bpm or more persisting for more than 10 minutes or not responding to maternal position change / maternal interventions** • Continue maternal interventions • Position woman on left side or any position that is not supine • Give oxygen • Start IV • Seek advanced care for possible cesarean birth

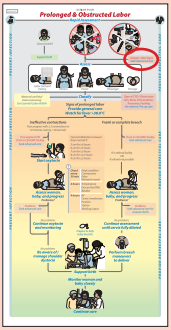
Information from partograph / medical records

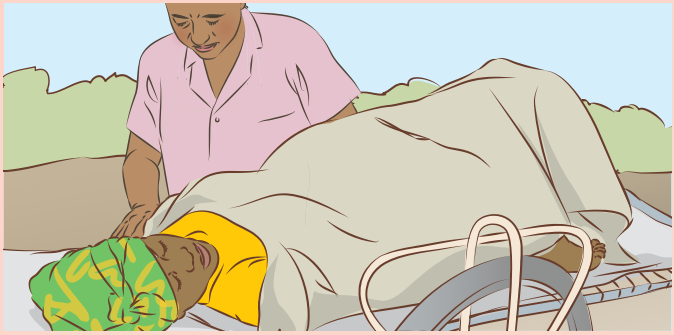
Gestational age	**At least 37 weeks' gestation**	**34 weeks' to 36 +6 weeks' gestation** • Refer in labor if a Kangaroo Mother Care unit is not available	**Less than 34 weeks' gestation** • Refer in labor if specialist neonatal care is not available
Amniotic fluid	• Clear • No foul odor Membranes ruptured for less than 18 hours before birth	**Meconium-stained** • Re-assess fetal heart rate **Fluid has a foul odor or is yellow/greenish** • Check maternal pulse and temperature, and uterus for signs of infection • Give antibiotics for chorioamnionitis • Re-assess fetal heart rate	**Bleeding (not "bloody show")** • Start IV • Give oxygen • Seek advanced care

Contractions	**3-5 occurring every 10 minutes, lasting more than 40 seconds each** **Contractions resulting in progressive cervical dilatation** **The uterus completely relaxes between contractions**	**Two contractions or less in 10 minutes, each lasting less than 40 seconds / Contractions without progressive cervical dilatation** • Conduct a rapid evaluation • Recount contractions over a period of 10 minutes • Evaluate hydration status (signs of dehydration and ketonuria), presence of anxiety or fear, mobility, position of the woman • Provide support and reassurance, provide pain relief if needed, manage dehydration if needed, encourage mobility and upright positions • Augment labor with oxytocin if there are no signs of cephalopelvic / fetal pelvic disproportion or obstruction and other measures to address identified problems have failed • Provide general methods of labor support, which may improve contractions and accelerate progress	**More than five contractions in 10 minutes, or if any contraction lasts longer than 60 seconds / Continuous uterine contractions that do not allow the uterus to relax / Constant pain that persists between contractions or is sudden in onset / Contractions cease altogether** • Conduct rapid evaluation • Recount contractions over a period of 10 minutes • If hyperstimulation and on oxytocin, stop oxytocin infusion • Start IV • Give oxygen • Consider betamimetics if fetal distress • Seek advanced care
Cervical dilatation	**Dilatation within the normal parameters:** • Remains at 5 cm for less than 6 hours • Remains at 6 cm for less than 5 hours • Remains at 7 cm for less than 3 hours • Remains at 8 cm for less than 2.5 hours • Remains at 9 cm for less than 2 hours	**Cervical dilatation is slower than normal in active phase.** • Conduct a rapid evaluation • Evaluate hydration status (signs of dehydration and ketonuria) • Evaluate the 4 Ps to rule-out cephalopelvic disproportion and obstructed labor and diagnose the cause • Provide support and reassurance, provide pain relief if needed, manage dehydration if needed, encourage mobility and upright positions • Provide specific care for the identified cause • Provide supportive care, encourage ambulation, food and fluids • Reassess in 2 hours. Seek advanced care if no progress.	**3-5 contractions occurring every 10 minutes, lasting more than 40 seconds each BUT:** **Cervical dilatation is slower than normal in active phase.** **There is arrest of cervical dilatation in active phase.**
Duration of active phase of labor	**Progress of cervical dilatation from 5 to 10 cm does not extend beyond 12 hours in first labors or beyond 10 hours in subsequent labors**	**Progress of cervical dilatation from 5 to 10 cm extends beyond 12 hours in first labors or beyond 10 hours in subsequent labors / Cervical dilatation is to the right of the alert line on the partograph** • Conduct a rapid evaluation • Evaluate hydration status (signs of dehydration and ketonuria) • Evaluate the 4 Ps to rule-out cephalopelvic disproportion and obstructed labor and diagnose the cause • Provide support and reassurance, provide pain relief if needed, manage dehydration if needed, encourage mobility and upright positions • Provide specific care for the identified cause • Provide supportive care, encourage ambulation, food and fluids • Reassess in 2 hours. Seek advanced care if **no progress.**	**Signs/Symptoms of cephalopelvic disproportion or obstructed labor** • Conduct rapid evaluation • Start IV • Provide support • Seek advanced care

If you identify a Danger or Alert sign:

Seek advanced care





Key knowledge

During rapid assessment, if you identify a danger sign or complication you cannot manage, seek advanced care.

Key Actions

- Give urgent care and emotional support until the woman can receive advanced care. Give treatment: IV, oxygen, MgSO4, antibiotics, etc as indicated.
- Put the transport plan into action if not in an advanced care facility and complete the referral form. **However, if you think birth is near, do not transport her!**
- Call the senior provider if you are in a facility that provides advanced care.
- Communicate your findings to team members using the Situation-Background-Assessment- Recommendation or "SBAR" technique.
- SBAR can be used to give report by telephone, in person to providers who arrive to help or during patient transfers.
- Make sure that the provider you are reporting to has understood what you have told them. If they ask you to do something, repeat what they have asked you to do, particularly with medication orders. This is called "closed loop" communication.

Case studies:
SBAR communication tool
Practice case:
Ms. Z. is a 38 y/o G8P5 at 40 weeks who was admitted in labor after having regular contractions for more than 10 hours at home, and severe abdominal pain that stopped abruptly. Her sister is with her.

Rapid Assessment: Ms. Z. says she is no longer having contractions but her abdomen is very tender, her baby is not moving, and she saw blood in her urine. She appears exhausted. Her eyes are sunken, her mouth is dry and the skin of her forearm went back slowly when pinched. Vital signs: T 37.4°C, Pulse 112 beats/minute and regular, BP 82/52, Respiratory rate 32 breaths/minute. Her conjunctivae are pale. FHR: absent (2 providers confirmed). On targeted examination, an abnormal uterine contour, tender abdomen, and easily palpable fetal parts were noted. Actions taken: sent blood for hemoglobin and type/cross-match, gave oxygen, catheterized for 120mL of bloody urine, and started an IV with normal saline running at 1 L in 15–20 minutes.

SBAR

S

Situation: What is going on with the patient?

My name is [your name], I am [title], working on ward [name of the unit]

I am calling about [patient's name] currently hospitalized in [unit]

I am calling because [very briefly / succinctly describe the main reason you are calling -- e.g. bleeding, convulsions, high BP – to orient the person you are calling to other information you will provide]

B

Background: What is the patient's pertinent history, clinical background, treatments received and response, additional information?

Patient [XX] was admitted on [XX date] with [e.g., in labor, complaint XX, poor labor progress, maternal fever]

Relevant history

- Relevant medical history is: _____
- Allergies: _____

Treatment summary:

- Since her arrival, the following tests were done [e.g., lab tests, ultrasound, x-ray]
- She has received the following treatments [e.g., antibiotics, analgesics, MgSO4, antihypertensives, IV fluids, IV oxytocin, oxygen]

Relevant physical examination findings: Physical assessment findings relevant to her problem on her last assessment at __:__ am/pm were:

- BP: ___/___, Pulse:_____ bpm, T: ___°C, Respirations: _____ breaths/minute, FHR: _____ bpm
- Contractions: ___ in 10 minutes each lasting _____ seconds, Cervical dilatation: _____ cm, Fetal descent: _____/5, Presentation/Position: _____
- Other pertinent findings: _____[e.g., estimated blood loss]

Clinical course summary:

- Since we gave her [XX treatment], her condition has [describe how the patient has responded to the treatment]

A

Assessment: What do you think is going on with the patient?

- I think the problem is [XXX] and I have [e.g., stopped the infusion, given O2] OR
- I am not sure what the problem is but the patient [XX] is deteriorating OR
- I don't know what's wrong but I am really worried

R

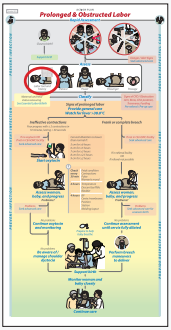
Recommendations: What do you think needs to be done?

- I need you to…..[e.g., come to see the patient as soon as possible]
  AND
- Is there anything I need to do in the meantime (e.g., stop the fluid, repeat assessment, give a treatment)?

		Ms. Z	Other practice
S	**Situation.** Give your name and unit; the patient's name; a short description of the problem.		
B	**Background.** Briefly give key information related to the problem. This could be date of admission; diagnosis, pertinent history, allergies, medications; vital signs, signs and symptoms, findings from physical assessment, changes from previous assessments; brief review of treatment to date.		
A	**Assessment.** Say what you think the problem is based on your findings.		
R	**Recommendation.** Tell the provider what you think she needs including additional tests and ask them what they want you to do until she reaches care.		

Assess

Labor documentation tool and history



Key knowledge

Once you have done a rapid assessment and know the woman does not have any danger or alert signs and that birth is not close, take a complete history and review her records. This will help you identify problems early.
If the woman was referred to you from another facility or provider, try to speak directly to the referring provider to get a report.

Checklist

☐ History of labor: Check the labor documentation tool or ask the woman:
- When did contractions begin? How often? How strong?
- Is she leaking fluid? If yes, when did it start and what color?
- Treatment(s) already received?
- Maternal vital signs, mood and behavior, urine, danger signs
- FHR, molding, caput
- Position and presentation
- Labor progress: cervical dilatation, descent, contractions, time of membrane rupture.

☐ History of past pregnancies:
- How many total pregnancies?
- How many births and losses?
- Any problems in previous pregnancies or births (bleeding, high blood pressure, infection, or severe tears, etc)?
- For past births, were they spontaneous, assisted by forceps or vacuum, or cesarean? If she had a cesarean or operative birth, why?

☐ Medical history:
- Allergies?
- Any chronic medical problems?
- Any medications?

☐ History of this pregnancy:
- Expected due date (EDD) and how was it determined (last known menstrual period, ultrasound at what GA)?
- Any problems with this pregnancy (such as bleeding, high blood pressure, or infections)
- treatments received and results?
- Taking any medications now?
- Any sexually transmitted infections (i.e. syphilis, chlamydia, gonorrhea) or treatment for these?
- HIV status? If she is living with HIV, is she on antiretroviral therapy and virally suppressed? Has her partner been tested?
- What is her most recent hemoglobin, hematocrit?

☐ Document findings in the labor record.

EXERCISE

Labor documentation tool and history

SCENARIO 1:

Ms. A. 26 y/o G4P2 who came to you in labor. Her due date is 7 days from today by a known LMP. She started strong contractions 12 hours ago. Your rapid assessment findings at 5:00:

- No danger signs or urge to push.
- BP 128/78, pulse 88 bpm, temperature 37.5°, respirations 14 breaths/minute; FHR: 136-148 bpm; no pallor or signs of dehydration
- Ms. A. is worried because her other labors were faster although her last baby got his shoulders stuck.

Information about this labor

- Contractions began about 12 hours ago and have been 3/10 minutes lasting 40 seconds.
- Membranes ruptured approximately 2 hours after contractions began and the liquor is clear.
- Ms. A. feels the baby moving.

History of past pregnancies

- 1st pregnancy: spontaneous abortion at 12 weeks; 2nd pregnancy: term pregnancy, died at 5 days from an unknown cause; 3rd pregnancy: term pregnancy, boy age 3 years.
- No complications in pregnancies, both births were vaginal. One was complicated by shoulder dystocia. Birth weights unknown.

Medical history

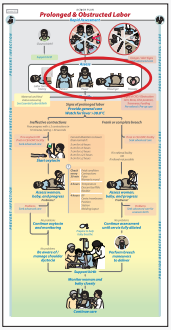
- Unremarkable past medical history. No surgeries of any kind. Married, living with her husband. No family history of chronic disease. No history of smoking, alcohol, or drug use.

History of this pregnancy

- 4 ANC visits - no identified complications, HIV and syphilis negative, last hemoglobin at 32 weeks' gestation was 10.2 g/dL.

What potential problems have you identified?

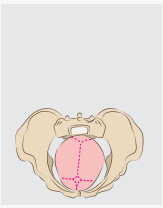
Assess the four "P"s



***P**atient*

***P**ower*

***P**assenger*



***P**assage*

Key knowledge

If labor is not progressing, we must quickly decide if labor is simply prolonged due to ineffective contractions or if it is prolonged because of obstruction. Management is very different for each but both require that you act quickly! Prolonged or obstructed labor can increase the risk of exhaustion, infection, postpartum hemorrhage (PPH), shoulder dystocia, asphyxia, and maternal or fetal death.

To understand why labor is prolonged and to know if it is obstructed, carefully assess the four "P"s:

- Patient: Coping, exhaustion, dehydration, anxiety, distress, full bladder, and position
- Power: Uterine contractions (frequency and progressive cervical dilatation
- Passenger: Fetal position, presentation, and size
- Passage: Maternal pelvis, relation of fetal size, presentation, and position to the pelvis

Prolonged active phase of 1st stage of labor is diagnosed when:

- The active phase of 1st stage of labour lasts 12 hours or more in first labours and 10 hours or more in subsequent labours (Remember, if the woman and fetus are doing well, do not intervene)
  OR
- There is secondary arrest of cervical dilatation and descent of the presenting part.

Prolonged 2nd stage of labor is when:

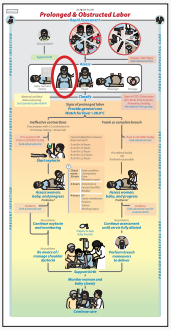
- Birth does not happen within 3 hours in nulliparas or 2 hours in multiparas
- The cervix is fully dilated and the woman has the urge to push, but there is no fetal descent
- Causes of prolonged labor include: Anxiety, exhaustion, dehydration, ineffective uterine contractions, poor maternal positioning such as supine, infection, malposition/malpresentation, obstruction or CPD.

Obstructed labor occurs in the 1st or 2nd stage of labor if the fetus cannot pass through the pelvis because it is physically blocked.

- Signs of obstruction include: 3+ caput and/or 3+ molding, presenting part poorly applied to the cervix, swelling of cervix, bulging lower portion of uterus, presence of a constriction band or ring (Bandl's ring).
- There may be secondary arrest of cervical dilatation and descent of the presenting part meaning there has been no change in cervical dilation for at least 2 hours, i.e. poor progress with good contractions.
- Causes of obstructed labor include: The baby's head or body is too large to pass through the pelvis. This is called cephalopelvic disproportion (CPD) or fetopelvic disproportion (FDP).
- Or there could be a small or deformed pelvis, birth canal obstruction such as a narrow vagina, female genital mutilation or tumors, large baby; baby with a birth defect, baby in malposition or malpresentation.
- If obstructed labor is confirmed, this is an emergency and requires a cesarean birth!

Assess Patient

Coping



Woman is not coping:

- ✓ *Fear*
- ✓ *Anxiety*
- ✓ *Distressed by pain*
- ✓ *Not in control of her behavior*

Key knowledge

- If a woman feels overwhelmed or afraid, this may interfere with labor progress. Anxiety can also increase her pain.
- When a woman's labor is not progressing normally, it is important to see what may be cause poor progress:
  - How she is coping - Is she afraid, anxious, in distress, not in control of her behavior?
  - Is she accompanied by a person of her choice?
  - Is she receiving pain relief?
- Help the woman as soon as you notice she is not coping well or is distressed by pain.

Key Actions

To prevent and manage anxiety and fear:

- Ensure privacy.
- Explain the labor process, her progress, what to expect and care options so she knows how she and her baby are doing.
- Praise, encourage, and reassure her.
- Listen to her and be sensitive to her feelings.
- Provide her with support, encouragement, and respectful care to help her cope.

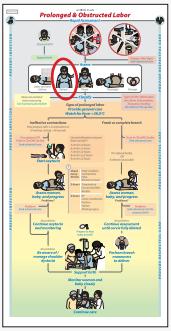
If she is needing help to cope with pain:

- Suggest a change of position.
- Encourage her to move and walk.
- Encourage her companion to massage her back, sponge her face or place a cool cloth at the back of her neck.
- Show her how to use breathing techniques.
- Encourage her to take a warm bath or shower if available.
- Offer other pain management options according to the woman's preference, national guidelines, availability and provider's experience for epidural or opioid analgesia.

If she does not have a companion of her choice, offer to call someone for her.

If she does have a companion of her choice, make sure the companion knows how to support her and when and how to call for help.

Hydration, position



Alert signs:

- ✓ *Signs of dehydration*
- ✓ *Full bladder*
- ✓ *Woman is mostly remaining in bed and not moving around*

Key knowledge

- If a woman in labor is dehydrated, it may prolong labor and lead to exhaustion.
- In first stage, a woman who is not moving or who stays lying down is more likely to have poor progress.
- In second stage, a woman who is pushing in a position she did not choose may not push effectively. Women who push lying down may have longer second stages.
- A full bladder in labor:
  - May weaken contractions and make her labor longer
  - Can increase pain, delay delivery of the placenta, and cause too much bleeding after birth
  - May prevent the baby from rotating into a good position for birth
  - May injure the bladder
- When a woman's labor is prolonged, it is important to check what may contribute to poor progress:
  - Is she dehydrated?
  - Is her bladder full?
  - What position is she in?

Key Actions

Every time you monitor the woman, see what she is drinking and eating.

- Encourage ALL women to eat and drink as they wish during labor.
- Make sure the woman has sweetened fluids (juice, sweetened tea, soft drinks) to drink or give oral rehydration salts.
- Look for signs of dehydration: Is her mouth dry or are her eyes sunken in? Is she extremely thirsty? Is her urine dark or does it have ++ or more? Is she fatigued, dizzy, or confused?
- If she is dehydrated and cannot drink, give 500 mL IV bolus over 30 minutes; evaluate the woman after the bolus; give up to 4 boluses for a total of 2L depending how she responds.

Check to see if her bladder is full or distended and if she is urinating regularly.

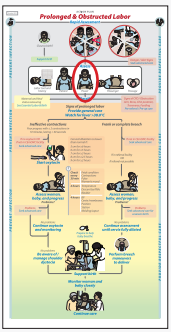
- Encourage women to empty their bladders frequently.
- If her bladder is full, help her empty it. If she is not able, use a catheter.

Every time you monitor the woman, check what position she in. Is she mobile or mostly lying down?

- Encourage her to be upright and move around as much as she can. However, let her choose her position and take time to rest.
- Support the woman's choice of position for each stage of labor and birth.

Assess Power

Contractions



Contractions are ineffective if:

- ✓ *Two contractions or less in 10 minutes, each lasting less than 40 seconds*
- ✓ *Labor progress is slower than normal*

Key knowledge

If labor is not progressing well, assess the number of contractions in 10 minutes and how many seconds they last.

Contractions are effective if:

- The woman is having three or more contractions in 10 minutes, each lasting more than 40 seconds.
- In the active phase of first stage, the contractions result in progressive dilatation of the cervix no matter how frequent.
- In second stage, the contractions result in progressive descent of the presenting part.

Key Actions

Act fast! Provide emergency care and seek advanced care if you find any of these danger signs:

- Constant pain that persists between contractions or comes on suddenly. This may be a sign of placental abruption especially if she is bleeding.
- Contractions stop completely. Check for signs of ruptured uterus and seek advanced care.
- Hyperstimulation: Any contraction lasts longer than 60 seconds OR if there are more than five contractions in 10 minutes OR the uterus does not relax between contractions. Manage any of these problems as hyperstimulation of the uterus and refer to page 12!

If the woman is having two contractions or less in 10 minutes, each lasting less than 40 seconds:

- Decide if they are effective or ineffective by assessing progress of cervical dilatation and fetal descent.
- Check if there are factors that might be contributing to poor contractions: hydration, maternal position and mobility, infection, fear or anxiety, distress with pain.

NOTE: Do not perform amniotomy as a sole intervention for augmentation of labor, especially in settings with high HIV prevalence.

- Encourage her to move and change position.

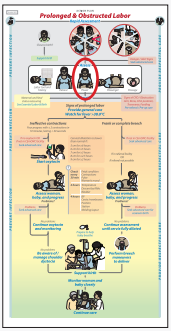
Provide general labor support, including pain relief, treatment for dehydration and comfort measures that may improve contractions and progress.

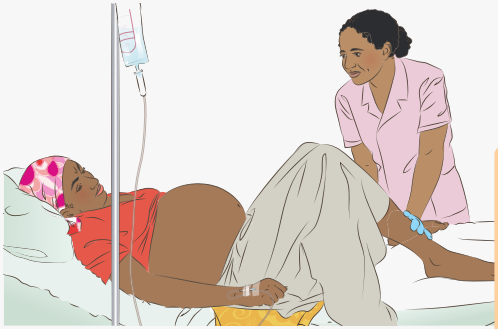
Advanced Care Note:
Refer the woman to a facility that can perform a cesarean birth and care for a baby with problems if you believe the woman has:

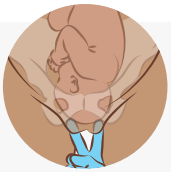
- CPD OR
- Obstruction OR
- Placental abruption OR
- Ruptured uterus

Also refer the woman if she has ineffective contractions but your facility cannot perform augmentation with oxytocin.
Guidance should be adapted based on local protocols.

Cervical dilatation







Cervical dilatation is slower than normal if it remains at:

5 cm for ≥6 hours

6 cm for ≥5 hours

7 cm for ≥3 hours

8 cm for ≥2.5 hours

9 cm for ≥2 hours

Key knowledge

The length and flow of every labor can be very different between women. It can even be different for the same woman from one labor to the next.

The duration of the active phase of first stage from 5 to 10 cm cervical dilatation is usually not more than 12 hours in first labors, and usually not more than 10 hours in subsequent labors.

Review the woman's record and labor documentation tool to see the rate of dilatation, descent / station and the contraction pattern from other checks.

NOTE: WHO guidelines (2020) define slower than normal cervical dilatation as a cervix that:
remains at 5 cm for 6 hours or more
remains at 6 cm for 5 hours or more
remains at 7 cm for 3 hours or more
remains at 8 cm for 2.5 hours or more
remains at 9 cm for 2 hours or more

Key Actions

If fetal and maternal conditions are reassuring, a finding that cervical dilatation slower than 1 cm/hour during active phase of labor should not be the only reason to try and speed up labor.

- If using the partograph, use the alert line of the partograph for identifying women who may require transfer for advanced care.
- If not in an advanced care facility, consider transferring the woman if cervical dilatation is slower than 1 cm/hour.

Rule-out CPD, obstruction, malposition or malpresentation if the woman is having three or more contractions in 10 minutes, each lasting 40 -60 seconds but:

- Cervical dilatation is slower than normal in active phase.
- There is arrest of cervical dilatation in active phase.

EXERCISE

Assess Power

SCENARIO 1:

Ms. A. is a 21 y/o G1P0 at 38 weeks who labored at home for 24 hours without giving birth. She appears comfortable and can talk during contractions. Rapid assessment shows everything is normal so far. Her mother says Ms. A. has had irregular contractions for the past 24 hours and that she is not leaking fluid.

At 21:00 hours: Ms. A.'s contractions 3/10 minutes lasting 40-50 seconds.

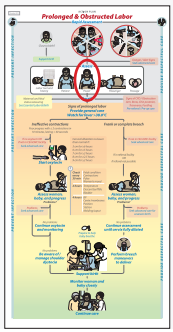
1. Are contractions "effective"?
2. What do you need to do to see if her contractions are "effective"?
3. Does the woman need advanced care?

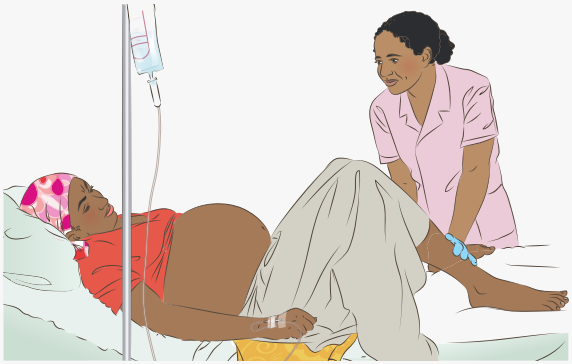
SCENARIO 2:

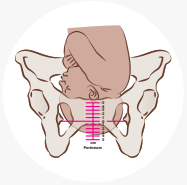
Ms. B. is a 28 y/o G5P3 at 39 weeks who has been laboring at your facility for 8 hours and in active phase of first stage of labor since 03:00 hours. At 05:00 hours you are taking over care of Ms. B. and find that she is having 2 contractions/10 minutes lasting 30 seconds.

1. Are contractions "effective"?
2. Does the woman need advanced care?

Fetal descent / station







Key knowledge

Fetal descent begins during active phase of the first stage of labor. Lack of descent with effective contractions may be a sign of CPD or obstruction. During abdominal examination, you should assess fetal descent in terms of fifths of fetal head palpable above the symphysis pubis.
During vaginal examination, you should also assess fetal station - where the largest diameter of the presenting part is in relation to the woman's ischial spines.

- -4 to zero indicates that the presenting part is above the ischial spines.
- 0 to +4 indicates that the presenting part has descended below the ischial spines.
- At station –4 or –3 the fetal head is still 'floating' and not yet engaged
  - At station –2 or –1 it is descending closer to the ischial spines
  - The baby's head is "engaged" (zero station) when the largest diameter of the fetal head (the biparietal diameter) is at the level of the woman's ischial spines.
  - Zero station is equivalent to 2/5 of the head being palpable above the symphysis pubis. The sinciput and part of the occiput are felt.
  - At station +3 the baby's head is crowning, i.e. visible at the vaginal opening even between contractions.

NOTE: Compare descent by abdominal examination to station determined by vaginal examination. If the baby has a large caput or significant molding, it may be difficult to assess station. In this case, assessment of descent by abdominal palpation may more useful than assessment by vaginal examination.

Key Actions

Suspect the woman's labor is obstructed or there is CPD and act quickly if the woman is having three or more contractions in 10 minutes, each lasting 40 -60 seconds but:

- The fetal head is not engaged.
- There is secondary arrest of descent.
- The cervix is fully dilated and the woman has the urge to push, but there is no descent.

Advanced Care Note:
Refer to a facility that can perform a cesarean birth and care for a baby with problems if:

- The cervix is not dilating with effective contractions, is swollen, or the fetal head is not well applied. These are all signs of obstruction.
- In active phase of first stage of labor, there is not progressive fetal descent with effective contractions.

Follow local protocols and standards.

Assess Passenger

Abdomen, Fetal presentation/Position/Lie and Estimated fetal weight

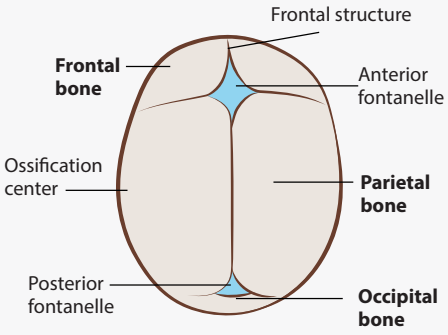
Key knowledge

- Abnormal presentation, lie, or position or a baby that is too large for the woman's pelvis can prevent labor from progressing normally.
- Malpresentation: when the fetus is in any presentation other than cephalic. Malpresentations increase the risk for uterine rupture because of the potential for obstructed labor.
- Malposition: The fetal head is in an abnormal position relative to the woman's pelvis.
- Confirm position and presentation during vaginal examination. Before conducting an exam, review findings from previous exams to compare them with your findings.
- A large baby is one with an estimated fetal weight more than 4 kg.
- If ultrasound is available, confirm presentation and position using ultrasound.

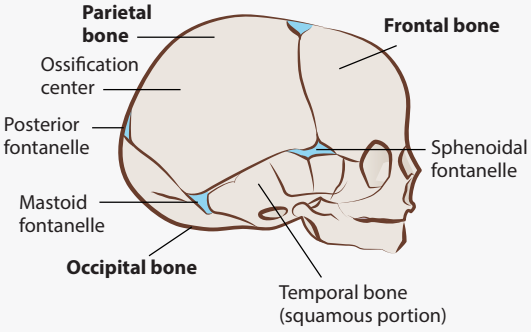
Advanced Care Note:
Based on local protocols and standards, refer women with the following findings if your facility cannot perform breech birth OR a cesarean birth OR care for a baby with problems:
Signs of obstructed labor (ballooning of lower uterine segment, Bandl's ring) OR
CPD OR
Breech presentation OR
Multiple pregnancy OR
Transverse lie and shoulder presentation OR
Chin-posterior position OR
Brow, footling, arm, shoulder presentation OR
Asynclitism not correcting itself spontaneously

Presentation / Position

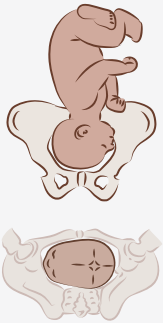
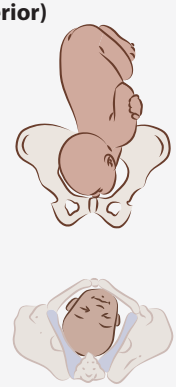
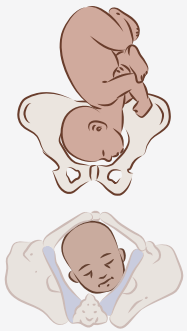
Superior view

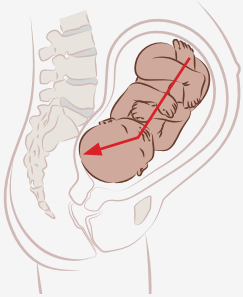


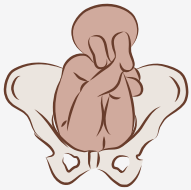
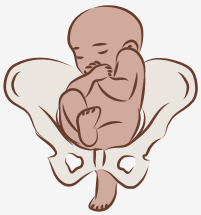
Lateral view



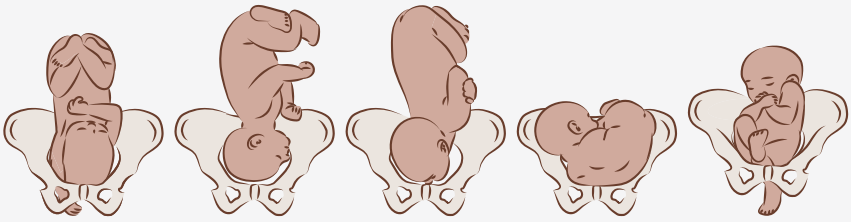
Position / Presentation	Findings on abdominal examination	Findings on vaginal examination
Left occipitoanterior (LOT) 		• The posterior fontanelle is towards the woman's left side
Left occipitoposterior (LOP)  	• The lower part of the abdomen is flattened, fetal limbs are palpable anteriorly and the fetal heart may be heard in the flank	• The posterior fontanelle is towards the sacrum and the anterior fontanelle may be easily felt if the head is deflexed

Position / Presentation	Findings on abdominal examination	Findings on vaginal examination
Brow 	More than half the fetal head is above the symphysis pubis and the occiput is palpable at a higher level than the sinciput	• Caused by partial extension of the fetal head so that the occiput is higher than the sinciput • The anterior fontanelle and the orbits are felt
Left mentoanterior (Chin anterior) 	• A groove may be felt between the occiput and the back	• Caused by hyper-extension of the fetal head so that neither the occiput nor the sinciput are palpable on vaginal examination • The face is palpated, the examiner's finger enters the mouth easily and the bony jaws are felt
Left mentoposterior (Chin posterior) 	• A groove may be felt between the occiput and the back	• Caused by hyper-extension of the fetal head so that neither the occiput nor the sinciput are palpable on vaginal examination • The face is palpated, the examiner's finger enters the mouth easily and the bony jaws are felt

Position / Presentation	Findings on abdominal examination	Findings on vaginal examination
Asynclitic 		• The center of the head is not in the middle of the pelvis when the cervix is ≥5 cm dilated. • Cervix is thicker on one side and thinner on the other side when the cervix is ≥5 cm.
Complete (flexed) breech presentation 	• Occurs when both legs are flexed at the hips and knees • The head is felt in the upper abdomen and the breech in the pelvic brim. Auscultation locates the fetal heart higher than expected with a vertex presentation.	• The buttocks and/or feet are felt; thick, dark meconium is normal
Compound presentation 	• Occurs when an arm prolapses alongside the presenting part. Both the prolapsed arm and fetal head present in the pelvis simultaneously.	

Position / Presentation	Findings on abdominal examination	Findings on vaginal examination
Frank (extended) breech presentation 	• Occurs when both legs are flexed at the hips and extended at the knees • The head is felt in the upper abdomen and the breech in the pelvic brim. Auscultation locates the fetal heart higher than expected with a vertex presentation.	• The buttocks and/or feet are felt; thick, dark meconium is normal
Footling breech presentation 	• Occurs when a leg is extended at the hip and knee • The head is felt in the upper abdomen and the breech in the pelvic brim. Auscultation locates the fetal heart higher than expected with a vertex presentation.	• The buttocks and/or feet are felt; thick, dark meconium is normal
Transverse lie and shoulder presentation 	• Occurs when the long axis of the fetus is transverse. The shoulder is typically the presenting part. • Neither the head nor the buttocks is felt at the symphysis pubis and the head is usually felt in the flank.	

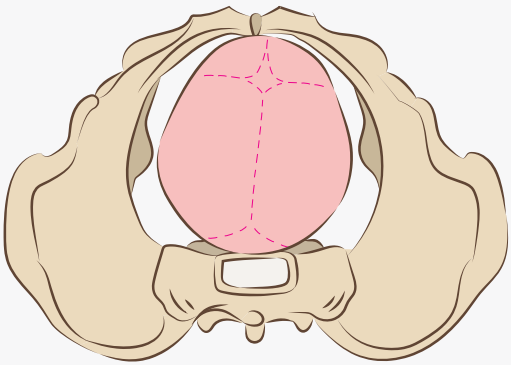
Malpresentations / Malpositions requiring cesarean birth



Arm/Compound | **Brow** | **Chin posterior** | **Shoulder/ Transverse** | **Footling**

Assess Passage

(Pelvis)



Key knowledge

Clinical pelvimetry is used to help identify if the pelvis will allow the fetus to fit through the birth canal.
CPD exists when the baby's head or body is too large or a woman's birth canal too small to allow the baby to be born. This may be due to a small pelvis, a large fetus, an unfavorable position of the fetus, or a combination of these factors.
Remember:

- A head that is not flexed and that is in an occiput posterior position may have trouble in any pelvis. However, a big baby, in occiput anterior position with a well-flexed head will probably do fine in a normal pelvis.

Key Actions

- If labor is not progressing normally, experienced and trained providers may use clinical pelvimetry to see if the pelvis is large enough to allow the baby to be born vaginally.
  - Women must not be prevented from a trial of labor based on pelvimetry alone.
  - Pelvimetry should only be used if labor is not progressing as expected and should be done only by a clinician trained and experienced in the skill.
- During vaginal examination, you should be particularly alerted to:
  - Problems with the birth canal that may cause obstruction (e.g., narrow vagina, female genital mutilation or tumors)
  - A deformed or narrow pelvis
  - Unsatisfactory descent in active phase of the first stage and in second stage with adequate contractions (at least 3/10 minutes, each lasting at least 40 seconds)

Advanced Care Note:
Based on local protocols and standards, seek advanced care immediately if you note any of the following:

- Signs of CPD: Secondary arrest of cervical dilatation – meaning no change in cervical dilation for at least 2 hours – and / or arrest of descent of the presenting part with good contractions.
- Labor not progressing normally and the woman's pelvis is too small for this fetus or you feel she may have a pelvic deformity or other problem with the birth canal.

Guidance should be adapted based on local protocols.

Assessment of the 4 Ps

Patient

1. How well she is coping? Is she afraid, anxious, in distress, not in control of her behavior?
2. If she is accompanied by a person of her choice?
3. If she is receiving pain relief if she needs it?
4. Is she drinking and eating?
5. Is she dehydrated? Is there ++ or more acetone in urine, dry mouth, sunken eyes, extreme thirst, dark-colored urine, fatigue, dizziness, confusion?
6. Is she passing urine regularly? Is her bladder full?
7. What position is she in? Is she mobile or mostly lying down?
8. Does she have signs of a uterine infection
   - temperature >38°C, abdominal or uterine tenderness, foul odor to vaginal discharge?

Power

1. How many contractions does she have in a 10-minute period? How many seconds does each one last?
2. Does the uterus relax between contractions?
3. Are contractions effective?
   - Is there progressive dilatation of the cervix?
   - Is there progressive descent of the presenting part?
   - Is the head engaged?
   - Is the head well applied to the cervix?
   - Is there poor progress of labor with good contractions?

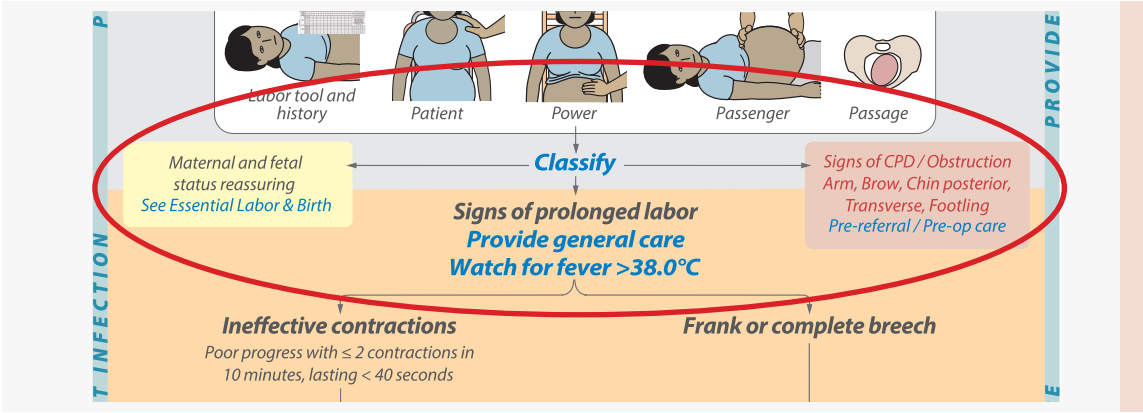
Passenger

1. What is her gestational age?
   - Is it more than 42 weeks or less than 37 weeks?
   - Do you need help estimating GA?
2. What is the estimated fetal weight?
   - Is it more than 4000 g or less than 2500 g?
   - Do you need help estimating fetal weight?
3. How is the fetus tolerating labor?
   - What is the FHR during and after contractions? Are there signs of fetal distress? FHR <110 bpm or ≥160 bpm?
   - Are membranes ruptured? For how long? Is liquor meconium-stained?
4. What is the fetal presentation?
   - Will the presentation most likely result in a vaginal birth such as cephalic or frank/complete breech with well flexed head?
   - Could the presentation be associated with prolonged labor?
5. What is the fetal position?
   - Will the position most likely result in a vaginal birth such as occiput, or chin anterior position?
   - Could the position be associated with prolonged labor?
6. Is the fetal head well flexed?

Passage

1. Does she have a cesarean scar? Was the cesarean for CPD?
2. Are there signs of obstruction or CPD?
   - 3+ caput and/or 3+ molding and/or
   - Presenting part poorly applied to the cervix and/or
   - Swelling of cervix and/or
   - Bulging lower portion of uterus / presence of a constriction band or ring (Bandl's ring).
3. Are there problems with the birth canal that may cause obstruction (e.g., narrow vagina, female genital mutilation or tumors)?
4. Is the pelvis deformed or narrow?
5. Does she need a specialist to perform clinical pelvimetry and help you make decisions about the mode of birth?

Classify



Key knowledge

Your assessment will allow you to classify if the labor is obstructed, prolonged, or normal. Once you have completed your assessment, decide if:

- The woman needs advanced care:
  - Labor is obstructed OR
  - There are signs of CPD OR
  - There is a malpresentation / malposition that requires a cesarean birth OR
  - She has a complication that you cannot manage at your facility.

- The woman's labor is prolonged and there are no signs of CPD/obstruction.
  - Manage prolonged labor depending on the identified cause

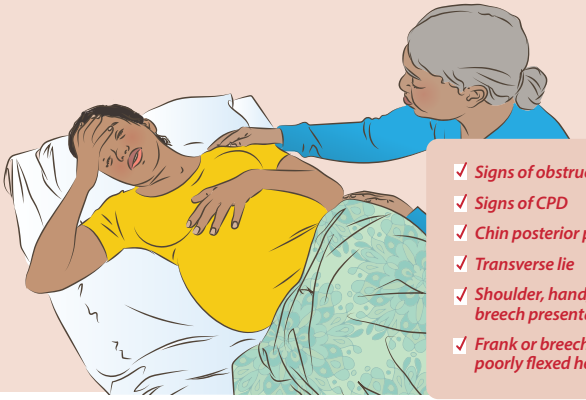
- The woman's labor is neither prolonged nor obstructed, and maternal and fetal conditions are reassuring.
  - Provide supportive labor care.

REMEMBER: The most important part of assessment when a woman's labor is prolonged is ruling-out CPD or obstruction. If there is a delay in diagnosis of CPD or obstruction, the woman and fetus' status can deteriorate rapidly and could result in long-term morbidity and even death.

Advanced Care Note:
If labor is obstructed or there are signs of CPD, or there are malpositions / malpresentations that require cesarean birth, seek advanced care. Guidance should be adapted based on local protocols and standards.

CPD / obstruction, malpresentation / malposition requiring cesarean

Pre-referral / Pre-operative care



- ✓ *Signs of obstruction*
- ✓ *Signs of CPD*
- ✓ *Chin posterior position*
- ✓ *Transverse lie*
- ✓ *Shoulder, hand, brow, footling breech presentation*
- ✓ *Frank or breech presentation with poorly flexed head*

Key knowledge

Your assessment will help you decide what care she needs. For example, she will need an IV and may need antibiotics, oxygen, or analgesics.

If the baby is dead, the woman and her family need counseling to prepare for a stillborn baby. In some places, a craniotomy may be done if the baby is dead.

Key Actions

Act quickly and ensure urgent things are done first.

1. If you are transporting to another facility, begin your transport plan.

2. If you know a cesarean is likely needed, call the theatre team so they can prepare.

3. Notify the pediatric team to receive a distressed baby.

4. Explain to the woman and her companion what is happening and why cesarean or referral is needed. Answer any questions.

5. Give supportive and respectful care. Explain all procedures, obtain her consent, discuss any test results with her, listen and answer any questions she has.

6. Place the woman in left lateral position to improve blood flow to the uterus and other vital organs.

7. Start an IV with Ringer's Lactate or normal saline. Only these types of fluids that have a similar concentration of sodium to plasma are effective replacement fluids.
   - Collect blood for hemoglobin, immediate cross-match and bedside clotting test, just before infusion of fluids.
   - The rate will depend on whether she is stable, in shock, or dehydrated.

8. If the woman is in shock, place an indwelling foley catheter to ensure the bladder stays empty and to accurately record output.

9. Record all IV fluids infused, oral fluids, and urine output. However, do not give oral fluids to a woman in shock!

10. Give antibiotics if there are signs of

infection: temperature >38°C, foul-smelling vaginal discharge, uterine tenderness
- ampicillin 2 g IV every six hours PLUS
- gentamicin 5 mg/kg body weight IV every 24 hours

11. Provide pain management as needed.

12. Continue to monitor the progress of labor and the condition of the woman and her fetus closely. Never leave her alone.

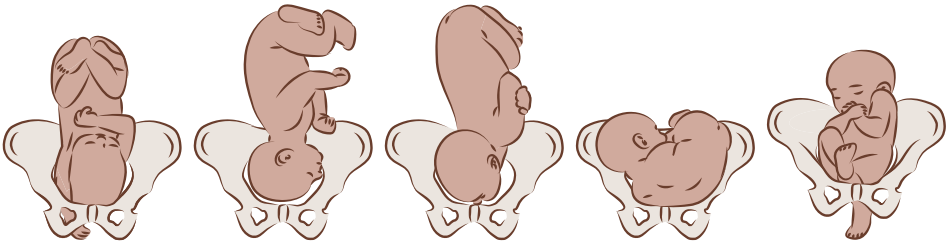
13. Complete the referral note and call the referral center if possible to alert them. Use SBAR to communicate.

IV rates
If there are signs of shock

- Rapidly infuse normal saline or Ringer's lactate IV at the rate of 1 L in 15–20 minutes.
- Give at least 2 L of these fluids in the first hour.
  Note: If shock is from bleeding, replace 2-3 times the estimated fluid loss.
- Once the woman's condition improves (increased BP, lowered pulse rate), adjust the rate of infusion of IV fluids to 1 L in six hours.

If the woman is dehydrated
- Give 500 mL over 30 minutes.
- If the woman's condition has not improved, give an additional 500 mL over 30 minutes.
- If the woman's condition has still not improved, seek advanced care and continue the infusion at 1L in an hour for no more than 1 L more.
- Once the woman's condition improves (increased BP, lowered pulse rate), adjust the rate of infusion of IV fluids to 1 L in 6-8 hours.

If the woman is stable but needs an IV:
- Infuse IV fluids at 1 L in 6-8 hours.



Arm *Brow* *Chin posterior* *Transverse* *Footling*

Key knowledge

Act fast to make sure women receive advanced care if:

- You note any of the following signs of obstruction:
  - 3+ caput and/or 3+ molding and/or
  - Presenting part poorly applied to the cervix and/or
  - Swelling of cervix and/or
  - Bulging lower portion of uterus / presence of a constriction band or ring
  - (Bandl's ring).
- You note any of the following signs of CPD:
  - Secondary arrest of cervical dilatation (there has been no change in cervical dilation for at least 2 hours) and / or
  - Arrest of descent of the presenting part with good contractions.
- You identify chin posterior position; transverse lie; shoulder, brow, footling breech, or arm presentation; complete or frank breech with a poorly flexed fetal head!
- Labor is not progressing normally with frank or complete breech presentation, OP or asynclitic position.
- If ultrasound is available, confirm presentation and position using ultrasound.

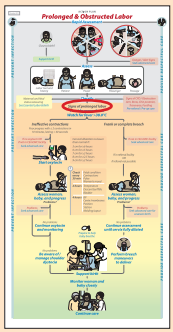
Key Actions

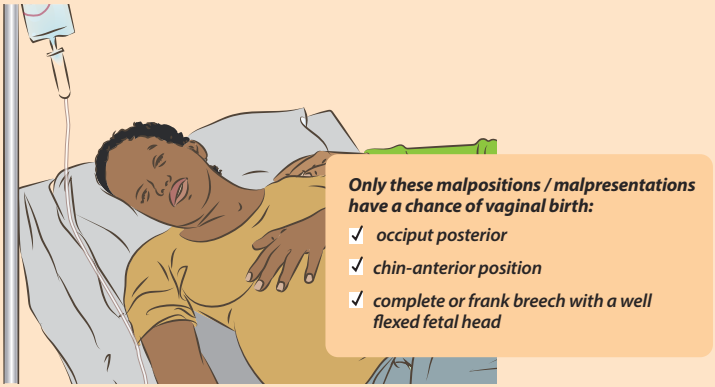
If you identify CPD/obstruction, a malposition/ malpresentation or a complication that you cannot manage at your facility:

- Prepare the woman for advanced care.
- Provide pre-referral and / or pre-operative care
- If advanced care is available at your facility, contact the consultant to come and advise you on her care. Put the transport plan into action if she must be referred.
- Until you transfer her care to the operating team:
  - Provide general labor and emotional support.
  - Monitor the woman, her baby, and the progress of labor very closely.
  - Make sure she has adequate pain relief!
  - Be sure to record all findings on the labor record or partograph, including the position/presentation.

If signs of prolonged labor with malposition

Provide general care





Only these malpositions / malpresentations have a chance of vaginal birth:

- ✓ *occiput posterior*
- ✓ *chin-anterior position*
- ✓ *complete or frank breech with a well flexed fetal head*

Key knowledge

- Before managing prolonged labor, always rule out obstructed labor.
- Only these malpositions / malpresentations have a chance of vaginal birth: occiput posterior, chin-anterior position, complete or frank breech with a well flexed fetal head.
- The cervix may not dilate at a rate of 1 cm/hour even during active phase. If both the woman and her baby are doing well and there are no signs of obstructed labor or CPD, do not try to speed up the process by augmentation or cesarean.

If you do not know why the labor is prolonged, give supportive care that may improve contractions.

- Always explain what is happening, what options she has, and gain consent before proceeding.
- Continue close monitoring of the woman, her baby, and labor progress so you can quickly identify any problems and act fast.

Key Actions

- Give supportive care:
  - Ensure privacy.
  - Allow her to have a companion of her choice.
  - Encourage her companion to give comfort. Have them offer the woman to rub her back, wipe her face and brow with a cool cloth, help her move and change position.
  - Be supportive and encouraging.
  - Respect her wishes.
  - Demonstrate and encourage breathing techniques.

- If you have identified why her labor is prolonged, manage the problem.

- Continue to monitor and record the well-being of the woman and her baby and respond immediately if you identify any problems:
  - progress of cervical dilatation
  - FHR
  - molding
  - amniotic fluid

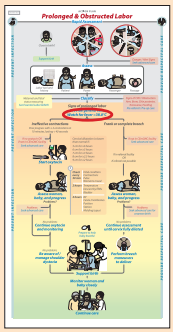
- fetal descent
- uterine contractions
- maternal temperature, pulse, blood pressure and urinary output
- maternal coping

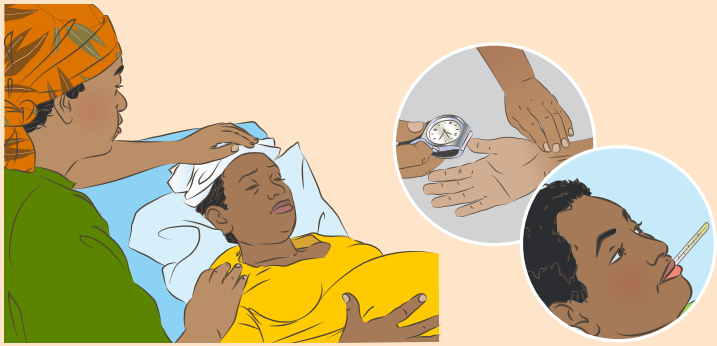
- Watch for fever.
- Encourage the woman to empty her bladder regularly.
- Encourage her to drink at least one cup of fluid each hour.
- Encourage her to eat if she is hungry.
- Encourage her to move and to remain upright instead of lying down if possible.
- Explain your findings from all assessments to the woman and her companion.
- Offer pain management during labor based on her preferences and availability: relaxation techniques, emotional support, massage, warm or cold compresses, breathing, bathing, epidural or opioid analgesia.
- If any findings are not reassuring, act fast and seek advanced care.

Check every 30 min	*Fetal condition* *Contractions* *Pulse* *Woman's mood*
2 hours	*Temperature* *Descent by fifths* *Bladder*
4 hours	*BP* *Cervix/membranes* *Position* *Station* *Molding/caput*

If signs of prolonged labor

Watch for fever >38°C





Key knowledge

A woman with prolonged labor is at risk for infection. Carefully monitor her temperature and respond immediately if it is > 38°C.

- There are 4 major causes of fever in labor: uterine infection/chorioamnionitis, non-obstetric infection, overheating / dehydration, epidural for more than 4 hours.
- Chorioamnionitis puts both the woman and her fetus at risk. However, fever during labor may be from other causes. Be aware of common infections in your community.
- Focus your history, review of systems, and physical exam to determine the cause.

Key Actions

Evaluation of intrapartum fever

1. Perform a rapid evaluation of the woman's general condition, vital signs, level of consciousness, presence of anxiety or confusion, blood loss, and skin color.

2. If shock is suspected, act fast to treat her! Even if signs of shock are not present, keep shock in mind as you evaluate the woman further, because her status may worsen rapidly. If she goes into shock, begin treatment immediately.

3. Check the fetal heart rate and ask about fetal movements.
   - If the fetal heart rate is too high or too low (<110 ou ≥160 beats per minute), suspect fetal distress.
   - If you cannot hear a fetal heart beat, ask colleagues to listen or use a Doppler stethoscope, if available.
   - If the fetal heart still cannot be heard, suspect fetal death.

4. Ask about symptoms such as abdominal tenderness, foul odor to vaginal discharge, pain on urination, back pain around the

kidneys, productive cough, shortness of breath, chest pain, pain when breathing, sore throat, headache, chills, abdominal pain, diarrhea, vomiting, etc.

5. Ask about exposure to malaria or other diseases.

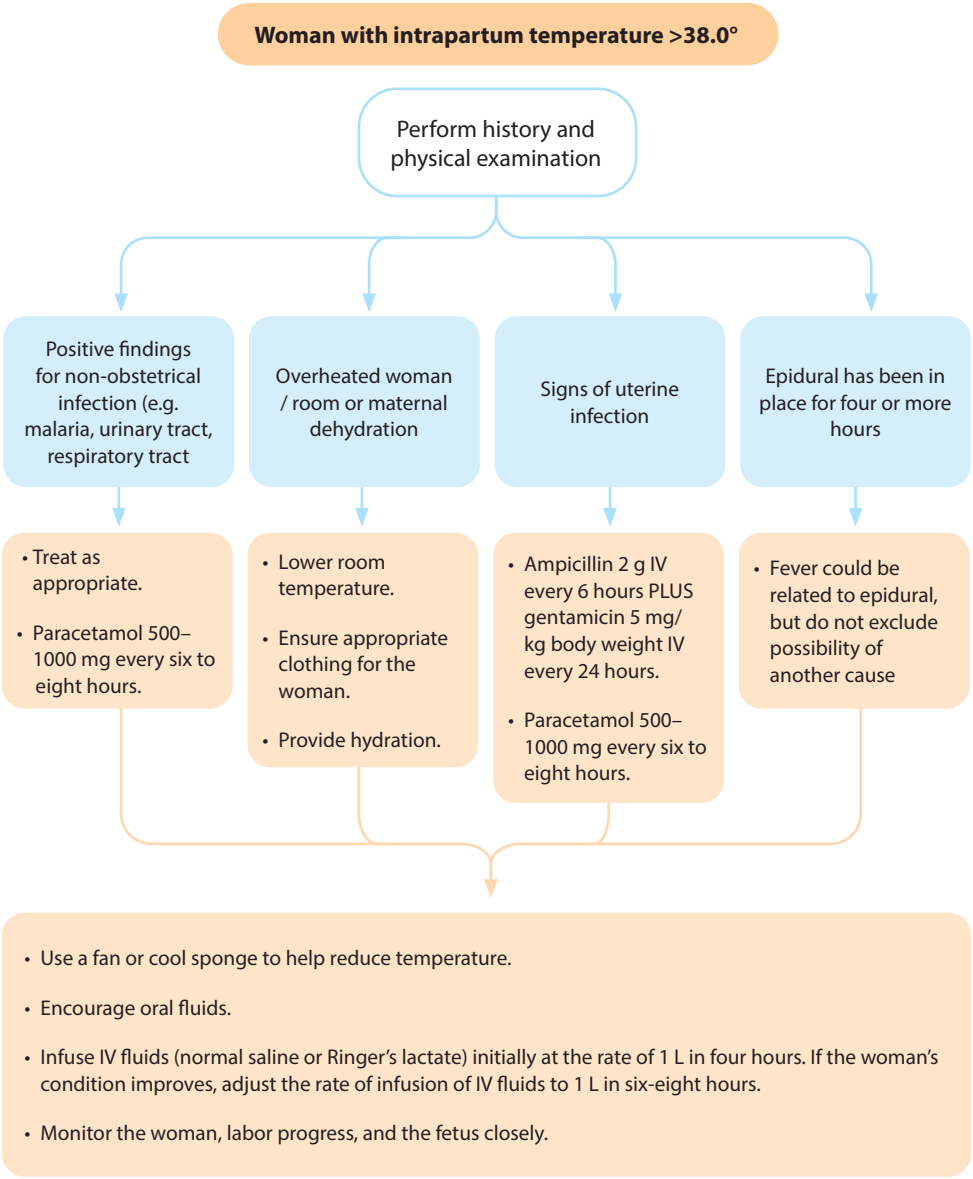
6. Review the labor record and history including medical, obstetric, current pregnancy, and labor.
7. Conduct a focused physical examination based on signs and symptoms. For example:
   - If urinary signs/symptoms: Check for suprapubic pain, tenderness in rib cage (costovertebral angle area).
   - Check for uterine tenderness and assess for foul odor of vaginal discharge.
   - If respiratory symptoms: Check for rales in the lungs, difficulty breathing, coughing up blood, productive cough .
8. Do laboratory tests as directed by examination.
   - If in a malarial endemic region, conduct rapid test.
   - If exposed to infection, TB, COVID-19, influenza, conduct rapid test
   - If infection is suspected, do a complete blood count.
   - If urinary tract infection is suspected, check urine for leucocytes and nitrites
   - Check urine for acetones.

9. Make a diagnosis

10. Manage the fever based on the cause.

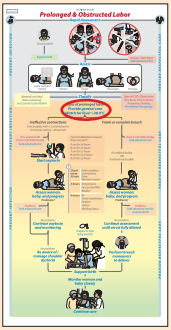
11. Plan to monitor the woman, fetus, and labor progress closely.

Intrapartum fever algorithm



If uterine infection

Give IV fluids and antibiotics
Give fever reducer



- ✓ *Temperature >38 °C*
  PLUS
- ✓ *Fundal tenderness*
  AND/OR
- ✓ *Foul smelling vaginal discharge*

Key knowledge

Early diagnosis and treatment of uterine infection improves the chance of a healthy woman and baby.

- Presume uterine infection if you find: Temperature >38°C PLUS Fundal tenderness AND/OR Foul-smelling vaginal discharge.
- A woman with uterine infection may develop shock from sepsis. It is a leading cause of maternal and neonatal death.
- Closely monitor the woman, her baby, and her labor.
- After birth, give the baby prophylactic antibiotics for at least 2 days and watch closely for signs of sepsis!

Key Actions

Treat uterine infection during labor:
Antibiotics

- Ampicillin 2 g IV every 6 hours PLUS
- Gentamicin 5 mg/kg body weight IV every 24 hours PLUS

If the woman will have a cesarean birth, cleanse the vagina with povidone-iodine before surgery.

Supportive care
Encourage fluids (mouth or IV).

- If shock is suspected, immediately begin treatment. If there are no signs of shock, keep shock in mind and act quickly if shock develops!
- For fever or dehydration, infuse IV fluids initially at 1 L in 4 hours. If the woman's condition improves, adjust the rate of infusion to 1 L in six-eight hours.
- For maintenance IV, infuse IV fluids at 1 L in 6 hours.

- Use a fan or cool sponge to give comfort and help reduce temperature.
- Give paracetamol 500–1000 mg every six to eight hours (maximum of 4000 mg in 24 hours) to reduce temperature.
- **Make sure she has adequate pain relief – contractions with an infected uterus may be very painful!**

Monitoring
Monitor the woman, labor progress, and the baby closely.

- Act fast if you find any problems!
- Begin additional treatment or refer if her condition gets worse!
- As long as all other findings remain normal, continue treatment for infection and provide ongoing emotional support and comfort.

December 2022

ACTION PLAN

Prolonged & Obstructed Labor

PREVENT INFECTION

PREVENT INFECTION

PREVENT INFECTION

PROVIDE RESPECTFUL CARE

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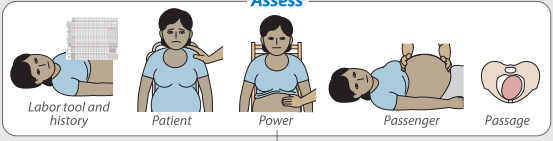
Rapid Assessment

Close to birth?

Support birth

Danger / Alert Signs
Seek advanced care

Assess



Classify

Maternal and fetal status reassuring
See Essential Labor & Birth

Signs of CPD / Obstruction
Arm, Brow, Chin posterior, Transverse, Footling
Pre-referral / Pre-op care

Signs of prolonged labor
Provide general care
Watch for fever >38.0°C

Ineffective contractions

Poor progress with ≤ 2 contractions in 10 minutes, lasting < 40 seconds

If no oxytocin OR if not in CEmONC facility
Seek advanced care

Start oxytocin

Cervical dilatation is slower than normal if :

5 cm for ≥6 hours
6 cm for ≥5 hours
7 cm for ≥3 hours
8 cm for ≥2.5 hours
9 cm for ≥2 hours

Assess woman, baby, and progress
Problems?

Problems
Seek advanced care

No problems
Continue oxytocin and monitoring

No problems
Be aware of / manage shoulder dystocia

Frank or complete breech

If not in CEmONC facility
Seek advanced care

If in referral facility
OR
If referral not possible

Assess woman, baby, and progress
Problems?

Problems
Seek advanced care for cesarean birth

No problems
Continue assessment until cervix fully dilated

Perform breech maneuvers to deliver

Check every 30 min	Fetal condition Contractions Pulse Woman's mood
2 hours	Temperature Descent by fifths Bladder
4 hours	BP Cervix/membranes Position Station Molding/caput

Prepare to help baby breathe

Support birth

Monitor woman and baby closely

Continue care