Clinical Practice Guideline Title: Intrapartum Management of Normal and Prolonged Labor	
Ownership: Hospitals Department	**Code: HS/HD/GL/ 009**
Effective Date: October 15, 2017	**Revision Due Date: October 15, 2018**
Applies to: All MOHAP Healthcare facilities	

1. Objectives:

1.1 To reduce maternal morbidity by reducing the rate of caesarean sections with its complications and maternal infection.

1.2 To improve the neonatal outcome by reducing fetal hypoxia and neonatal asphyxia.

1.3 This guideline is applicable to low risk pregnant patients suspected to have or diagnosed to be in labor.

1.4 This guideline is applicable to all healthcare providers in MOHAP as appropriate to their work assignment.

2. Clinical Inclusion Criteria:

2.1 First Stage of Labor:

2.1.1 Latent first stage of labor: A period of time, not necessarily continuous, when:

2.1.1.1 There are painful contractions **and,**

2.1.1.2 There is some cervical change, including cervical effacement and dilatation up to 4 cm.

2.1.2 Established first stage of labor: this stage occurs when:

2.1.2.1 There are regular painful contractions **and,**

2.1.2.2 There is progressive cervical dilatation from 4 cm.

2.1.3 Duration:

2.1.3.1 First labor lasts on average for 8 hours and is unlikely to last over 18 hours.

2.1.3.2 Second and subsequent labor last on average for 5 hours and are unlikely to last over 12 hours.

2.2 Second Stage of Labor:

2.2.1 Passive second stage of labor: The finding of full dilatation of the cervix before or in the absence of involuntary expulsive contractions.

2.2.2 Active second stage of labor:

2.2.2.1 The baby is visible.

2.2.2.2 Expulsive contractions with a finding of full dilatation of the cervix or other signs of full dilatation of the cervix.

2.2.2.3 Active maternal effort following confirmation of full dilatation of the cervix in the absence of expulsive contractions.

2.2.3 Duration:

2.2.3.1 For a nulliparous woman: Birth would be expected to take place within 3 hours of the start of the active second stage in most women.

2.2.3.2 For a multiparous woman: Birth would be expected to take place within 2 hours of the start of the active second stage in most women.

2.2.3.3 After diagnosis of full dilatation in the presence of regional analgesia the expected duration will be 4 hours irrespective to the parity.

2.3 Third Stage of Labor:

The third stage of labor is the time from the birth of the baby to the expulsion of the placenta and membranes.

2.3.1 Duration:

2.3.1.1 30 minutes after active management of 3rd stage.

2.3.1.2 60 minutes after physiological management of 3rd stage.

3. Clinical Exclusion Criteria: Not applicable

4. Protocol:

4.1 Management of Normal First Stage of Labor:

4.1.1 Communication: To establish communication with the woman:

4.1.1.1 Treat all women in labor with respect. Ensure that the woman is in control of and involved in what is happening to her, and recognize that the way in which care is given is key to this.

4.1.1.2 Greet the woman with a smile and a personal welcome, establish her language needs, introduce yourself and explain your role in her care.

4.1.1.3 Maintain a calm and confident approach so that your demeanor reassures the woman that all is going well.

4.1.1.4 Ask how the woman is feeling and whether there is anything in particular she is worried about.

4.1.1.5 If the woman has a written birth plan, read and discuss it with her.

4.1.1.6 Assess the woman's knowledge of strategies for coping with pain and provide balanced information to find out which available approaches are acceptable to her.

4.1.1.7 Encourage the woman to adapt to the environment to meet her individual needs.

4.1.1.8 Ask her permission before all procedures and observations, focusing on the woman rather than the technology or the documentation.

4.1.1.9 Involve the woman in any handover of care to another professional, either when additional expertise has been brought in or at the end of a shift.

4.1.1.10 Encourage and help the woman to move and adopt whatever positions she finds most comfortable throughout labor.

4.1.1.11 Encourage the woman to have support from birth companion(s) of her choice.

4.1.2 Hygiene Measures:

4.1.2.1 Tap water may be used if cleansing is required before vaginal examination.

4.1.2.2 Routine hygiene measures taken by staff caring for women in labor, including standard hand hygiene and single use no sterile gloves are appropriate to reduce cross contamination between women, babies and healthcare professionals.

4.1.2.3 Selection of protective equipment must be based on an assessment of the risk of transmission of microorganisms to the woman, and the risk of contamination of the healthcare workers' clothing and skin by woman's blood, body fluids, secretions or excretions.

4.1.3 Initial Assessment:

4.1.3.1 When performing an initial assessment of a woman in labor, listen to her story and take into account her preferences and her emotional and psychological needs.

4.1.3.2 Review the antenatal notes (including all antenatal screening results) and discuss these with the woman.

4.1.3.3 Ask about the length, strength and frequency of contractions.

4.1.3.4 Ask about any pain she is experiencing and discuss the options for pain relief.

4.1.3.5 Record the pulse, blood pressure and temperature, and carry out urinalysis.

4.1.3.6 Record if the woman has had any vaginal loss.

4.1.3.7 Ask about the baby's movements in the last 24 hours.

4.1.3.8 Palpate the abdomen to determine the fundal height, the baby's lie, presentation, position, engagement of the presenting part.

4.1.3.9 If there is uncertainty about whether the woman is in established labor, a vaginal examination may be helpful after a period of assessment, but is not always necessary.

4.1.3.10 If the woman appears to be in established labor, offer a vaginal examination.

4.1.3.11 When conducting a vaginal examination:

4.1.3.11.1 Be sure that the examination is necessary and will add important information to the decision-making process.

4.1.3.11.2 Recognise that a vaginal examination can be very distressing for a woman, especially if she is already in pain, highly anxious and in an unfamiliar environment.

4.1.3.11.3 Explain the reason for the examination and what will be involved.

4.1.3.12 Measuring fetal heart rate as part of initial assessment:

4.1.3.12.1 Auscultate the fetal heart rate at first contact with the woman in labor, and at each further assessment.

4.1.3.12.2 Auscultate the fetal heart rate for a minimum of 1 minute immediately after a contraction and record it as a single rate.

4.1.3.12.3 Palpate the maternal pulse to differentiate between maternal heart rate and fetal heart rate.

4.1.3.12.4 Record accelerations and decelerations, if heard.

4.1.3.12.5 Do not perform on admission for low risk women in suspected or established labor in any birth setting as part of the initial assessment.

4.1.3.13 If a woman came with painful contractions, but is not in established labor:

4.1.3.13.1 Recognise that a woman may experience painful contractions without cervical change, and although she is described as not being in labor, she may well think of herself as being 'in labor' by her own definition.

4.1.3.13.2 Offer her individualised support, and analgesia if needed.

4.1.3.13.3 Encourage her to remain at or return home.

4.1.4 Care in Established Labor:

4.1.4.1 Provide a woman in established labor with supportive one-to-one care.

4.1.4.2 Do not leave a woman in established labor on her own except for short periods or at the woman's request.

4.1.4.3 For blood test, do Type and screen in low risk cases and Type and Cross match in patient having risk for abnormal bleeding.

4.1.4.4 Do not offer either H_2-receptor antagonists or antacids routinely to low risk women. Except for women who receive opioids or who have or develop risk factors that make a general anesthetic more likely.

4.1.4.5 Inform the woman that she may drink during established labor and that isotonic drinks may be more beneficial than water.

4.1.4.6 Avoid solid food.

4.1.4.7 Give maintenance IVF 5% Dextrose and 0.45% Saline if oral intake is not adequate.

4.1.4.8 Offer intermittent fetal heart rate monitoring to low risk women in established first stage of labor in all birth settings.

4.1.4.9 Do not offer or advise clinical intervention if labor is progressing normally and the woman and baby are well.

4.1.4.10 In all stages of labor, women who have left the normal care pathway because of the development of complications can return to it if/when the complication is resolved.

4.1.4.11 Do not routinely use verbal assessment using a numerical pain score.

4.1.4.12 Record the following observations during the first stage of labor:

4.1.4.12.1 Half- hourly documentation of frequency of contractions

4.1.4.12.2 Hourly pulse

4.1.4.12.3 4- hourly temperature and blood pressure

4.1.4.12.4 Frequency of passing urine

4.1.4.13 Offer a vaginal examination 4-hourly or if there is concern about progress or in response to the woman's wishes or abnormal CTG.

4.1.4.14 Give ongoing consideration to the woman's emotional and psychological needs, including her desire for pain relief.

4.1.5 Possible Routine Interventions in the First Stage:

4.1.5.1 Do not routinely offer the package known as active management of labor (one-to-one

continuous support; strict definition of established labor; early routine Amniotomy; routine 2-hourly vaginal examination; Oxytocin if labor becomes slow).

4.1.5.2 In normally progressing labor, do not perform Amniotomy routinely.

4.1.5.3 Do not use combined early Amniotomy with use of Oxytocin routinely.

4.1.5.4 Avoid Amniotomy in such condition:

4.1.5.4.1 Active hepatitis B and C, or HIV

4.1.5.4.2 Group B Streptococcus (GBS) is not a contraindication to Amniotomy, if indicated.

4.1.6 Management of Delay in the First Stage of Labor:

4.1.6.1 If delay in the established first stage is suspected, take the following into account:

4.1.6.1.1 Parity

4.1.6.1.2 Cervical dilatation and rate of change

4.1.6.1.3 Uterine contractions

4.1.6.1.4 Station and position of presenting part

4.1.6.1.5 The woman's emotional state

4.1.6.2 Offer the woman support, hydration, and appropriate and effective pain relief.

4.1.6.3 If delay in the established first stage is suspected, assess all aspects of progress in labor when diagnosing delay, including:

4.1.6.3.1 Cervical dilatation of less than 2 cm in 4 hours for first labor.

4.1.6.3.2 Cervical dilatation of less than 2 cm in 4 hours or a slowing in the progress of labor for second or subsequent labors.

4.1.6.3.3 Descent and rotation of the baby's head.

4.1.6.3.4 Changes in the strength, duration and frequency of uterine contractions.

4.1.6.4 If delay in the established first stage of labor is suspected, Amniotomy should be considered for all women with intact membranes, after explanation of the procedure and advice that it will shorten her labor by about an hour and may increase the strength and pain of her contractions.

4.1.6.5 Whether or not a woman has agreed to an Amniotomy, advise all women with suspected delay in the established first stage of labor to have a vaginal examination 2 hours later, and diagnose delay if progress is less than 1 cm.

4.1.6.6 If the diagnosis of delayed progress is still there after 2 hours of examination, advice to start Oxytocin, explain to the patient that using Oxytocin after spontaneous or artificial rupture of the membranes will bring forward the time of birth but will not influence the mode of birth or other outcomes.

4.1.6.7 For a multiparous woman with confirmed delay in the established first stage of labor, an obstetrician should perform a full assessment, including abdominal palpation and vaginal examination, before a decision is made about using Oxytocin.

4.1.6.8 Offer all women with delay in the established first stage of labor support and effective pain relief.

4.1.6.9 Inform the woman that Oxytocin will increase the frequency and strength of her

contractions and that its use will mean that her baby should be monitored continuously. Offer the woman an epidural before Oxytocin is started.

4.1.6.10 If Oxytocin is used, ensure that the time between increments of the dose is no more frequent than every 30 minutes. Increase Oxytocin until there are 4–5 contractions in 10 minutes.

4.1.6.11 Start continuous CTG once Oxytocin is started.

4.1.6.12 Advise the woman to have a vaginal examination 4 hours after starting Oxytocin in established labor.

4.1.6.13 If cervical dilatation has increased by less than 2 cm after 4 hours of Oxytocin, further obstetric review is required to assess the need for caesarean section.

4.1.6.14 If cervical dilatation has increased by 2 cm or more, advise 4-hourly vaginal examinations.

4.2 Management of Normal Second Stage of Labor:

4.2.1 Continue to take the woman's emotional and psychological needs into account.

4.2.2 Assess progress, which should include the woman's behavior, the effectiveness of pushing and the baby's wellbeing, taking into account the baby's position and station at the onset of the second stage

4.2.3 Carry out the following observations in the second stage of labor; record all observations on the Partogram:

4.2.3.1 Half- hourly documentation of the frequency of contractions

4.2.3.2 Hourly blood pressure

4.2.3.3 Continued 4-hourly temperature

4.2.3.4 Frequency of passing urine

4.2.4 Offer a vaginal examination hourly in the active second stage, or in response to the woman's wishes (after abdominal palpation and assessment of vaginal loss).

4.2.5 Ongoing consideration should be given to the woman's position, hydration, coping strategies and pain relief throughout the second stage.

4.2.6 Technique of normal vaginal delivery:

4.2.6.1 Ask the woman to pant or make only small expulsive efforts when the head is fully crowning and delivery is imminent; this prevents the head from being propelled through the perineum.

4.2.6.2 Use one hand to maintain the head in a flexed position and control the speed of crowning and use the other hand to ease the perineum over the head.

4.2.6.3 Once the fetal head delivers, external rotation (restitution) occurs spontaneously.

4.2.6.4 If the cord is around the neck (nuchal cord), slipping the cord over the head usually successfully frees the fetus from the tether. If a single nuchal cord is not reducible, doubly clamp and transect it. Other options for a cord that is difficult to reduce but not tight include slipping it over the shoulders and delivering the body through the loop, and delivering the body without reducing the cord (somersault maneuver).

4.2.6.5 Mucus is gently wiped from the newborn's nose and mouth. Most newborns do not need to

be suctioned.

4.2.6.6 After delivering the head, a hand is placed on each side of the head and the anterior shoulder is delivered with the next contraction, using gentle downward traction toward the mother's sacrum in concert with maternal expulsive efforts. In this way, the anterior shoulder is guided under the symphysis pubis. The posterior shoulder is then delivered by upward traction. These movements should be performed with as little downward or upward force as possible to avoid perineal injury and/or traction injuries to the brachial plexus.

4.2.6.7 The delivery is then completed, either spontaneously or with a gentle maternal push.

4.2.6.8 There is no evidence that oro-nasopharyngeal suctioning by a bulb or catheter is beneficial in healthy term newborns. However, suctioning immediately after birth is appropriate for newborns with obvious obstruction to spontaneous breathing due to secretions or who are likely to require positive-pressure ventilation.

4.3 Management of Delayed Second Stage of Labor:

4.3.1 For a nulliparous woman: diagnose delay in the active second stage when it has lasted 2 hours.

4.3.2 For a multiparous woman: Diagnose delay in the active second stage when it has lasted 1 hour.

4.3.3 For a nulliparous woman, suspect delay if progress (in terms of rotation and/or descent of the presenting part) is inadequate after 1 hour of active second stage. Offer vaginal examination and then offer Amniotomy if the membranes are intact.

4.3.4 For a multiparous woman, suspect delay if progress (in terms of rotation and/or descent of the presenting part) is inadequate after 30 minutes of active second stage. Offer vaginal examination and then offer Amniotomy if the membranes are intact.

4.3.5 If full dilatation of the cervix has been confirmed in a woman without regional analgesia, but she does not get an urge to push, carry out further assessment after 1 hour.

4.3.6 Consideration should be given to the use of Oxytocin, with the offer of regional analgesia, for nulliparous women, if contractions are inadequate at the onset of the second stage.

4.3.7 Discourage the woman from lying supine or semi supine in the second stage of labor and encourage her to adopt any other position that she finds most comfortable.

4.3.8 Inform the woman that in the second stage she should be guided by her own urge to push.

4.3.9 If pushing is ineffective or if requested by the woman, offer strategies to assist birth, such as support, change of position, emptying of the bladder and encouragement.

4.3.10 If there is delay in the second stage of labor, or if the woman is excessively distressed, support and sensitive encouragement and the woman's need for analgesia/anesthesia are particularly important.

4.3.11 An obstetrician should assess a woman with confirmed delay in the second stage before contemplating the use of Oxytocin.

4.3.12 After initial obstetric assessment of a woman with delay in the second stage, maintain ongoing obstetric review every 15–30 minutes.

4.3.13 Think about offering instrumental birth if there is concern about the baby's wellbeing or there is a prolonged second stage.

4.3.14 The choice of instrument depends on a balance of clinical circumstance and practitioner experience.

4.3.15 Advise the woman to have a caesarean section if vaginal birth is not possible.

4.4 Intrapartum Interventions to Reduce Perineal Trauma:

4.4.1 Do not perform perineal massage in the second stage of labor.

4.4.2 Either the 'hands on' (guarding the perineum and flexing the baby's head) or the 'hands poised' (with hands off the perineum and baby's head but in readiness) technique can be used to facilitate spontaneous birth.

4.4.3 Do not offer Lidocaine spray to reduce pain in the second stage of labor.

4.4.4 Do not carry out a routine episiotomy during spontaneous vaginal birth.

4.4.5 Inform any woman with a history of severe perineal trauma that her risk of repeat severe perineal trauma is not increased in a subsequent birth, compared with women having their first baby.

4.4.6 Do not offer episiotomy routinely at vaginal birth after previous third- or fourth degree trauma.

4.4.7 If an episiotomy is performed, the recommended technique is a mediolateral episiotomy originating at the vaginal fourchette and usually directed to the right side. The angle to the vertical axis should be between 45 and 60 degrees at the time of the episiotomy.

4.4.8 Perform an episiotomy if there is a clinical need.

4.4.9 Provide tested effective analgesia before carrying out an episiotomy, except in an emergency because of acute fetal compromise.

4.5 Management of Normal Third Stage of Labor:

4.5.1 Active management of the third stage involves a package of care comprising the following components:

4.5.1.1 Routine use of uterotonic drugs: administer 10 IU of Oxytocin by intramuscular injection with the birth of the anterior shoulder or immediately after the birth of the baby and before the cord are clamped and cut, or pabal injection (oxytocin agonist) 100 microgram intravenous. Use Oxytocin as it is associated with fewer side effects than Oxytocin plus Ergometrine.

4.5.1.2 Do not clamp the cord earlier than 1 minute from the birth of the baby and not more than 5 minutes unless there is concern about the integrity of the cord or the baby has a heartbeat below 60 beats/minute that is not getting faster.

4.5.1.3 Controlled cord traction after signs of separation of the placenta.

4.5.2 Physiological management of the third stage involves a package of care that includes the following components:

4.5.2.1 No routine use of uterotonic drugs.

4.5.2.2 No clamping of the cord until pulsation has stopped .

4.5.2.3 Delivery of the placenta by maternal effort.

4.6 Management of Prolonged Third Stage:

4.6.1 Patients with severe bleeding: Severe bleeding is an obstetric emergency that requires prompt intervention. The retained placenta should be manually removed as soon as possible.

4.6.2 Patients without severe bleeding:

4.6.2.1 When the placenta has been retained for 30 minutes in a stable patient delivered in the third trimester, we perform a physical examination (and sometimes Ultrasound) to determine whether the placenta is merely trapped or still adherent and begin preparations for intervention.

4.6.2.2 Risk of hemorrhage begins to increase 20 to 30 minutes after birth however, delaying intervention until at least 30 minutes have elapsed will lead to spontaneous delivery of many placentas. Waiting as long as 60 minutes is reasonable if an intervention can be promptly and successfully initiated if the patient begins to bleed.

4.6.3 Management:

4.6.3.1 Apply controlled cord traction: Gentle controlled cord traction alone may result in successful delivery of a trapped or incarcerated placenta or promote separation of placenta adherents. For the Brandt-Andrews maneuver, one hand is placed on the abdomen to secure the uterine fundus and prevent uterine inversion while the other hand exerts sustained downward traction on the umbilical cord . Care should be taken to avoid avulsion of the cord.

4.6.3.2 Address contributing uterine factor:

4.6.3.2.1 Excessive cervical /uterine contraction: If the lower uterus/cervix is contracted, thereby preventing expulsion of the placenta, administration of nitroglycerin (Glyceryl Trinitrate) will result in relaxation and facilitate placental delivery.

For dose or route of administration: Glyceryl Trinitrate two sprays (400 micrograms/spray) onto or under the tongue. Other options include administration of sequential bolus intravenous injections: 50 micrograms, maximum cumulative dose 200 micrograms, until sufficient uterine relaxation is achieved to allow manual removal of the placenta, or sublingual tablets 0.6 to 1.0 milligrams. Uterine relaxation occurs within 60 seconds after the dose and lasts for one to two minutes. Blood pressure should be monitored continuously, as a drop in blood pressure always occurs.

4.6.3.2.2 Atony: if the uterus is atonic, separation and/or expulsion of the placenta may fail to occur. In these cases, intravenous infusion of Oxytocin may facilitate placental delivery. A reasonable dose is 10 to 30 units in 500 mL saline, with the rate of infusion adjusted, as needed, to prevent uterine atony.

4.6.3.3 Perform manual extraction:

4.6.3.3.1 Manual extraction of the placenta is performed if controlled cord traction and drug therapy do not lead to the delivery of the retained placenta.

4.6.3.3.2 Manual extraction is painful; therefore, except in cases of severe bleeding or other emergency, adequate analgesia should be achieved with regional or general

anesthesia, or conscious sedation.

4.6.3.3.3 The procedure should be performed in a room where aseptic technique is easily achieved and appropriate personnel, medications, and equipment are available to deal with any complications (e.g., hemorrhage, placenta accreta, uterine perforation) that arise.

4.6.3.3.4 Manual extraction of the placenta is associated with an increased risk of endometritis. World Health Organization (WHO) recommendation is to administer a single prophylactic dose of a broad spectrum antibiotic.

4.6.3.3.5 After routine surgical preparation and bladder catheterization, one hand follows the path of the umbilical cord through the vagina, cervix, and lower uterine segment to find the maternal placental interface, while the other hand steadies the uterine fundus through the maternal abdomen. If the opening of the cervix is too small to admit the clinician's hand, uterine relaxation may be achieved with Nitroglycerin (Glyceryl Trinitrate). The plane of interface, which feels velvety and irregular, is gently dissected using a side-to-side motion of the fingers until the placenta has been completely separated.

4.6.3.3.6 There is no role for routine uterine curettage or aspiration after manual extraction. It has no benefit and carries the risk of uterine perforation and Asherman syndrome. Routine ultrasound evaluation of the uterus after manual extraction is also unnecessary.

4.6.3.4 Incomplete extraction: during manual placental extraction, the clinician may note a small area where the placenta is very adherent to the uterus. This can usually be managed by slow persistent finger dissection to create a plane of separation at the maternal-placental **interface**. Curettage should be avoided, if possible, as the myometrium may be very thin at the point of adherence, thus increasing the risk of perforation.

4.7 Care of the Woman After Birth: Carry out the following observations of the woman after birth:

4.7.1 Record her temperature, pulse and blood pressure.

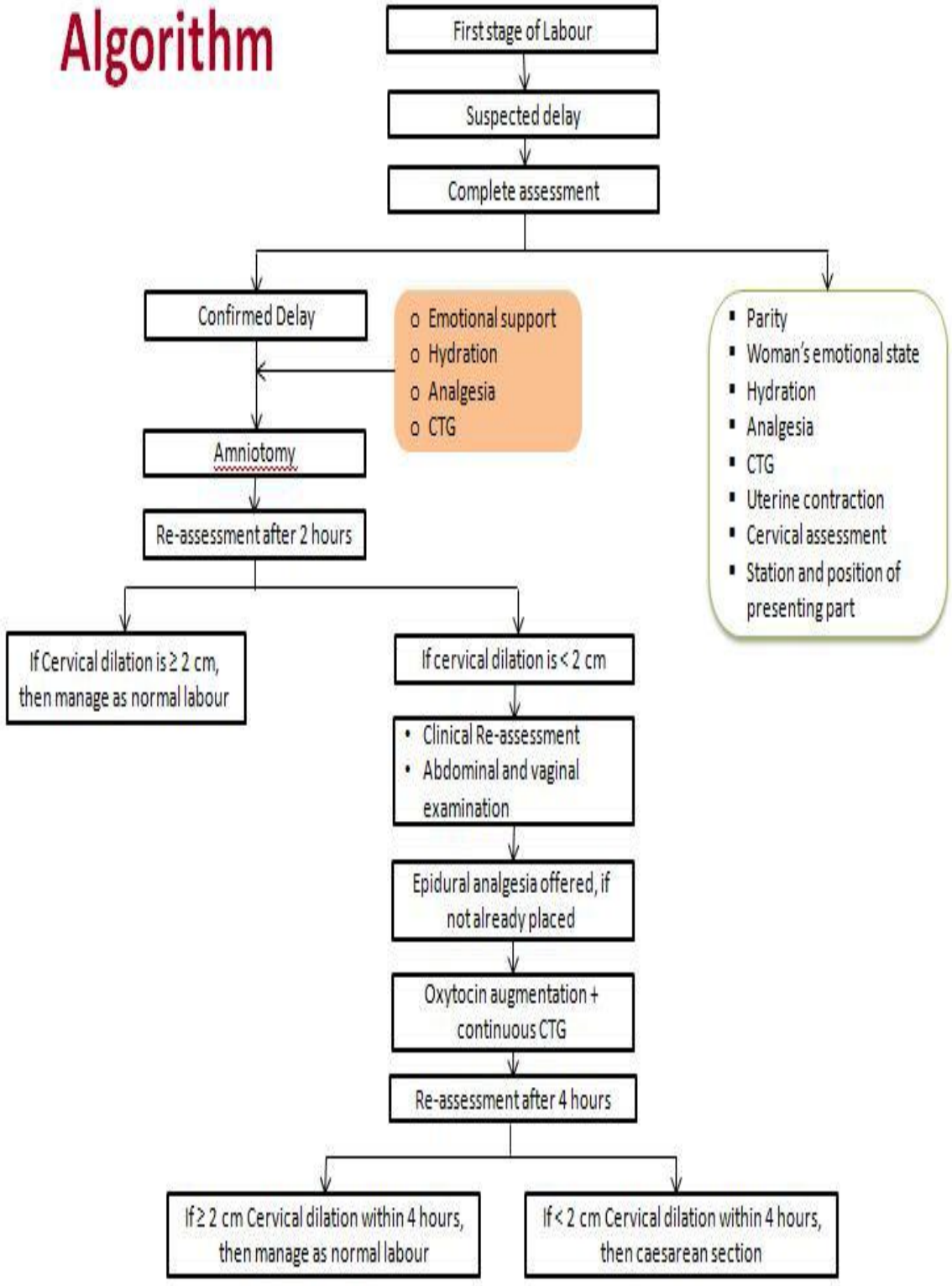
4.7.2 Observe uterine contraction and lochia.

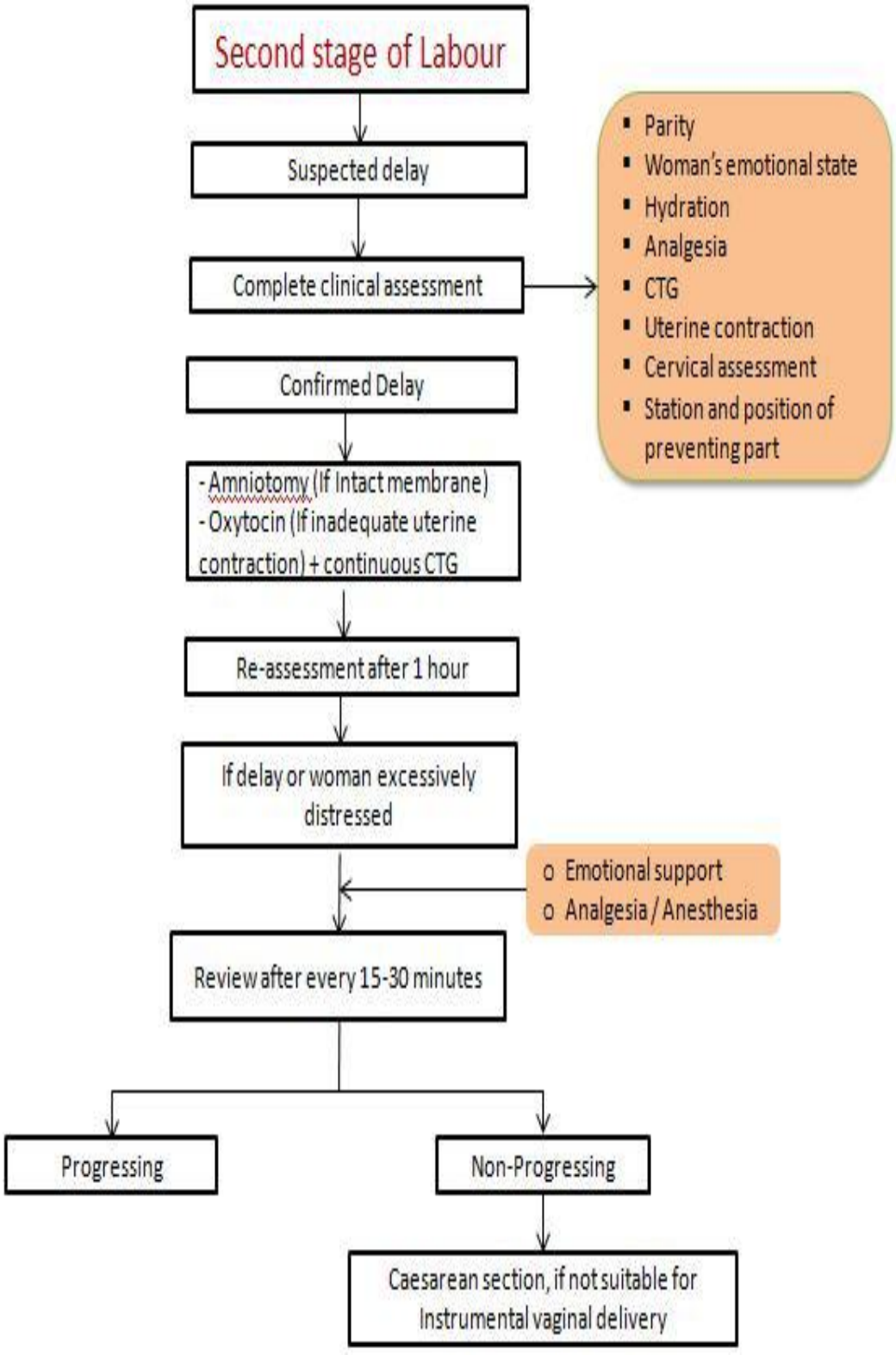
4.7.3 Examine the placenta and membranes: assess their condition, structure, cord vessels and completeness.

4.7.4 Early assessment of the woman's emotional and psychological condition in response to labor and birth.

4.7.5 Successful voiding of the bladder.

5. Algorithm:


Algorithm
First stage of Labour
Suspected delay
Complete assessment
Confirmed Delay
Emotional support
Hydration
Analgesia
CTG
Amniotomy
Re-assessment after 2 hours
Parity
Woman's emotional state
Hydration
Analgesia
CTG
Uterine contraction
Cervical assessment
Station and position of presenting part
If Cervical dilation is ≥ 2 cm, then manage as normal labour
If cervical dilation is < 2 cm
Clinical Re-assessment
Abdominal and vaginal examination
Epidural analgesia offered, if not already placed
Oxytocin augmentation + continuous CTG
Re-assessment after 4 hours
If ≥ 2 cm Cervical dilation within 4 hours, then manage as normal labour
If < 2 cm Cervical dilation within 4 hours, then caesarean section


Second stage of Labour
Suspected delay
Complete clinical assessment
Parity
Woman's emotional state
Hydration
Analgesia
CTG
Uterine contraction
Cervical assessment
Station and position of preventing part
Confirmed Delay
- Amniotomy (If Intact membrane)
- Oxytocin (If inadequate uterine contraction) + continuous CTG
Re-assessment after 1 hour
If delay or woman excessively distressed
Emotional support
Analgesia / Anesthesia
Review after every 15-30 minutes
Progressing
Non-Progressing
Caesarean section, if not suitable for Instrumental vaginal delivery

6. Other Healthcare Provider Role :

6.1 Obstetricians.

6.1.1 Support patient and the family.

6.1.2 Provide optimal care to the woman.

6.1.3 Explain the possible intervention, in the form of operative vaginal delivery or Cesarean section with good maternal and fetal Outcome.

6.2 Anesthesia Role:

6.2.1 Pre- anesthesia checkup.

6.2.2 Choosing the proper anesthesia technique according to the patient condition.

6.2.3 Monitoring the patient during surgery, if needed.

6.2.4 Post-operative fluid and pain management for the first 24 hours.

6.3 Nurses Role:

6.3.1 Patient care intrapartum and postpartum.

6.3.2 Monitor pain level, including location, intensity, and pattern during labor.

6.3.3 Assist patient to have comfortable position, and give emotional support.

6.3.4 Promptly prepare patient for surgery if indicated.

6.3.5 Give analgesics according to pain score, as ordered, and evaluate response.

6.3.6 Assessment of fetal wellbeing by cardiotocography.

6.3.7 Provide neonatal care just after delivery.

6.4 Laboratory Role:

6.4.1 Perform and report laboratory investigations requested by physician.

6.4.2 Inform about critical results according to hospital policy.

6.5 Pharmacist Role:

6.5.1 Ensure correct medicine, dose, and route of administration to correct Patient.

6.6 Dietitian Role:

6.6.1 Manage patient's diet related to patient status.

6.6.2 Educate patient regarding nutritional needs during hospitalization.

6.7 Pediatrician Role:

6.7.1 Receive the newborn and resuscitate if necessary.

6.7.2 Council the parents about the outcome and management plan.

6.7.3 Admit in SCBU for observation, if indicated.

7. Participant (Patient) Role:

7.1 The patient must be aware about progress of labor in all stages of labor.

7.2 Should be part of sharing decision in this case.

8. Definitions:

8.1 Abnormal Labor: Failure to meet the milestones of normal labor, i.e. uterine contractions that result in progressive cervical dilatation and effacement, decent and rotation of presenting part so as to achieve Spontaneous vaginal delivery.

9. Tools/Attachments Forms:

Nil

10. History:

New Guideline	
Remarks *(if any)*	

Revised Guideline	**Date of Revision:**
Date of 1st Edition:	**Revision Number:**

Clinical Practice Guidelines Status	Change	Reference Section

11. Performance Indicator:

11.1 Number of caesarean sections rate including elective and emergency.

11.2 Number of normal vaginal delivery /facility

11.3 Fetal complication rate during labor including fetal hypoxia , neonatal asphyxia and fetal death.

11.4 Maternal complications during delivery including (perineal trauma, postpartum hemorrhage, admission to ICU, maternal death)

12. Search Words:

Nil

13. References:

13.1 ACOG practice Bulletin no. 106 intrapartum fetal heart monitoring 2009.

13.2 ACOG, obstetric care consensus no.1 march 2014, safe prevention of primary caesarean delivery.

13.3 Management of normal labor and delivery, Up-to-date Sep. 2015.

13.4 NICE clinical guideline "intrapartumcare: Care of healthy women and their babies during childbirth" Dec.2014.

13.5 Overview of normal labor and protraction and arrest disorders.

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