دائـــــرة الـــصـــحـــة
DEPARTMENT OF HEALTH

DOH CESAREAN SECTION GUIDELINES

JANUARY 2021

PUBLIC عـــام

Document Title:	DOH Cesarean Section Guideline		
Document Ref. Number:	DOH/Guideline/ Cesarean Section	**Version**	0.9
For Further Advice Contact:	Healthcare Quality Division		
Applies To:	All healthcare providers and professionals licensed by DOH and engaged in the management of maternity patients in the Emirate of Abu Dhabi.		
Classification:	Public		
Document Owner/ Control	This document shall be reviewed and updated by Healthcare Quality Division		

Table of Contents:

1. Introduction

Vaginal delivery is the most common delivery method, which is a natural process that generally does not require significant medical intervention. Increasing medicalization of this process can be counterproductive in achieving the safety goals. While Cesarean section constitutes a lifesaving procedure, unnecessary cesarean births pose a risk to both the mother and the baby. Evidence indicates that "beyond a certain threshold increasing Cesarean section rates may be associated with increased maternal and perinatal morbidity. Cesarean birth is associated with short- and long-term risks that can extend many years beyond the current delivery and affect the health of the woman, the child and future pregnancies." (WHO recommendations non-clinical interventions to reduce unnecessary cesarean sections, 2018).

2. About this Guideline

This Guideline is based on a review of international guidelines and best practices on Cesarean Section. In addition, local technical/expert advice has largely contributed in the development of this guideline within the local context.

This document provides guidance to providers on the recommended indications and timing for C-section deliveries as well as vaginal birth after C-section towards consistency in medical practice in handling relative indications. It also provides a brief guidance on infrastructure and quality considerations for hospitals that provide obstetric services.

3. Purpose

This guideline is designed to serve as a basic reference for selecting C-section as a delivery mode in the Emirate of Abu Dhabi. The information contained combined with clinical judgment should lead to more appropriate decision making at the time of delivery and "minimize unnecessary C-sections" in the Emirate.

4. Scope

4.1. This guideline can be used by all healthcare providers and professionals licensed by DOH and engaged in the management of maternity patients in the Emirate of Abu Dhabi.

4.2. It applies to all patients seeking maternal care.

5. Abbreviations and Definitions

Category	Definition
C-Section	Cesarean Section
ECV	External Cephalic Version
EFW	Estimated Fetal Weight
TOL	Trial of Labor
CTG	Cardiotocograph
VBAC	Vaginal birth after cesarean section

6. Indications for Planned and Unplanned Cesarean Section:

Cesarean section should be offered to women with:

6.1. Singleton breech presentation at term, if vaginal birth is contraindicated and external cephalic version (ECV) is contraindicated, unsuccessful or declined.

6.2. Extreme preterm breech.

6.3. Other malpresentations such as unstable lie (a presentation that fluctuates from oblique, cephalic, transverse etc.), transverse lie or oblique lie, Brow presentation or persistent mentoposterior face presentation in labor.

6.4. Twin pregnancy where the first twin is not cephalic or the second twin is more than 20% of the estimated fetal weight of the first twin.

6.5. Higher order multiple pregnancy.

6.6. Monoamniotic twins.

6.7. Asymptomatic placenta praevia or major praevia, a placenta that partially or completely covers the internal cervical os.

6.8. Human immunodeficiency virus (HIV) positive women unless on Highly Active Antiretroviral Therapy (HAART) with viral load less than 40 copies / mL or any anti-retroviral therapy (ART) with viral load of < 50 copies / ml.

6.9. HIV co-infection with Hepatitis C virus.

6.10. Primary genital Herpes Simplex Virus (HSV) infection occurring in the third trimester of pregnancy.

6.11. Active genital herpes lesion at the time of labor with intact or non-intact membranes.

6.12. Medical factors for which planned Caesarean section is advisable:

- 6.12.1 Maternal pelvic deformity: Anatomic, pathologic or traumatic malformation, making vaginal birth impossible.
- 6.12.2 Transabdominal cervical cerclage
- 6.12.3 Severe maternal medical conditions. Examples include cardiomyopathy with poor ejection fraction, severe pulmonary hypertension, Eisemenger Syndrome, Marfan Syndrome with Aortic Diameter more than 40 mm.
- 6.12.4 Vaginal canal obstruction: Atresia or stenosis.
- 6.12.5 Pelvic masses causing obstruction of the birth canal such as large cervical fibroid, vaginal tumors or uterine lower segment tumors.
- 6.12.6 Advanced carcinoma of the cervix.

6.13. Intrauterine growth restriction with absent or reversed end diastolic flow in the umbilical artery Doppler.

6.14. Suspected macrosomia: Estimated fetal weight ≥ 4500 grams without maternal diabetes mellitus or estimated fetal weight ≥4000 grams with maternal diabetes mellitus.

6.15. Pathological cardiotocograph (CTG) when the fetus cannot be readily delivered vaginally (Full dilatation, engaged, below the ischial spine) from 24 weeks gestation.

6.16. Umbilical cord prolapse.

6.17. Uterine rupture: Acute during labor or suspected dehiscence at any time during pregnancy.
6.18. Significant antepartum bleeding where an immediate vaginal delivery is not possible.
6.19. Early onset (before 32 weeks) eclampsia or HELLP Syndrome or severe preeclampsia where an immediate vaginal delivery is not possible.
6.20. Congenital anomalies causing obstruction such as Severe Hydrocephalus, Conjoined twins and large fetal masses.
6.21. Perimortem C-section.
6.22. Vasa Previa.
6.23. Previous extensive myomectomy.
6.24. Previous one (1) cesarean section and patient declining "vaginal birth after cesarean section" (VBAC) following informed counselling by senior obstetrician explaining the risks and benefits.
6.25. Poor Obstetric History:
  6.26.1 Previous 3rd/4th perineal tear where the patient is symptomatic – after discussion with the patient and appropriate assessment.
  6.26.2 Previous shoulder dystocia - after counseling and the patient prefers a C-section.
  6.26.3 Previous vesicovaginal fistula repair.
  6.26.4 Previous two or more C-sections. Depending on the internal hospital policy, patients with two prior C-sections can elect to have a trial of vaginal delivery.
  6.26.5 Previous Classic C-Section or C-section extended into the upper segment.
6.26. Failure to progress or Failed induction of labor (<6 cm cervical dilation):
  6.27.1. After appropriate and significant use of oxytocin.
  6.27.2. Oxytocin with rupture of membranes for at least 18 hours and persistent latent phase.
6.27. Arrest of labor in the first stage for at least 4-6 hours (>6 cm cervical dilation with ruptured membranes, with or without oxytocin).
6.28. Arrest of labor in the second stage:
  6.29.1. Nulliparous women–lack of continuing progress for 3 hours (total of active and passive second-stage labor) with regional analgesia or 2 hours without regional analgesia.
  6.29.2. Parous women–lack of continuing progress for 2 hours (total of active and passive second-stage labor) with regional analgesia or 1 hour without regional analgesia
6.29. Failed Vacuum or Forceps.

7. Maternal Request for Cesarean Section:

7.1. Maternal request on its own is not an indication for cesarean section. The specific reasons for the request when there is no other indication should be explored with a consultant.

7.2. In the absence of maternal or fetal indications for cesarean delivery, a plan for vaginal delivery is safe and appropriate and should be recommended.

7.3. When a woman desires a cesarean delivery on maternal request, her health care provider should consider her specific risk factors for C-section such as age, body mass index, accuracy of estimated gestational age, reproductive plans, personal values, and cultural context.

6.1.1 The overall benefits and risks of cesarean section should be discussed with her and recorded in her medical records that the discussion has taken place.

7.4.

7.5. After exploring the reasons behind the patient's request and discussing the risks and benefits, if a patient decides to pursue cesarean delivery on maternal request, the following is recommended:

7.5.1 In the absence of other indications for early delivery, cesarean delivery on maternal request should not be performed before a gestational age of 39 weeks; and

7.5.2 Given the high repeat cesarean delivery rate, patients should be informed that the risks of placenta praevia, placenta accreta spectrum, and gravid hysterectomy increase with each subsequent cesarean delivery.

8. Timing of Elective Cesarean Section:

It is recommended that elective cesarean section in women without additional risks should be carried out at approximately 39 weeks gestation.

8.1. Preterm elective cesarean delivery are recommended:

8.1.1. In the event of maternal disease (such as pre-eclampsia), obstetric complications (such as multiple pregnancies or placenta praevia) or fetal complications (such as IUGR). In these situations, earlier 'elective cesarean delivery may be necessary after weighing up the relative hazards of premature delivery versus those associated with continuing the pregnancy.

8.1.2. If there are obstetric and / or medical indications to perform a planned cesarean section before 39 weeks gestation (or 38 weeks gestation for diabetic women), consider use of antenatal corticosteroids according to local protocols.

8.2. Women should be informed of the risks surrounding elective C-section delivery and the usual standards of documentation and consent should apply.

9. Consent & Documentation

9.1. Cesarean delivery can only be performed without the woman's consent in an emergency to save her life and/or that of the fetus if she is unable to give consent for whatever reason.

9.2. Otherwise, C-section can be performed in an emergency without written consent as long as verbal consent is obtained from the woman and clearly documented as such.

9.3. A pregnant woman is entitled to refuse the offer of cesarean section, which should be documented in the medical record.

9.4. When the decision to perform a cesarean section is made, an entry in the pregnant woman's medical record should be made of all the factors that influenced the decision, and which of these is the most influential.

10. Classification of Urgency

10.1. The category of cesarean section, using the following standardized scheme should be documented in the patient medical record

10.2. The category of cesarean section should take into account the condition of the woman and the unborn infant when making decisions about rapid delivery.

10.2.1. Category 1: Immediate threat to the life of the woman or fetus for example as seen with cord prolapse, uterine rupture or massive antepartum hemorrhage or pathological CTG. In this situation, the decision to delivery interval should be a maximum of 30 minutes.

10.2.2. Category 2: Maternal or fetal compromise, which is not immediately life-threatening but emergency delivery is required, for example, for poor progress in labor. The aim is to achieve a decision to delivery interval of 30-75 minutes.

10.2.3. Category 3: No maternal or fetal compromise but needs early delivery.

10.2.4. Category 4: Delivery timed to suit the woman, or staff / operating room availability.

11. Vaginal Birth after Previous Caeserean Section:

11.1. Provided there are no contraindications, a woman with 1 previous transverse low-segment Cesarean section should be offered a trial of labor (TOL) with appropriate discussion of maternal and perinatal risks and benefits.

11.2. The intention of a woman undergoing a TOL after Cesarean section should be clearly stated, and documentation of the previous uterine scar should be clearly marked on the prenatal record.

11.3. Continuous electronic fetal monitoring of women attempting a TOL after Cesarean delivery is indicated as per international guidelines and evidence-based best practice.

11.4. Suspected uterine rupture requires urgent attention and expedited laparotomy to attempt to decrease maternal and perinatal morbidity and mortality.

11.5. Mechanical induction of labor with a catheter is the preferred method of induction of labor in women with previous C-section.
11.6. Multiple gestation is not a contraindication to TOL after Cesarean section.
11.7. Diabetes mellitus is not a contraindication to TOL after Cesarean section.
11.8. Suspected fetal macrosomia is not a contraindication to TOL after Cesarean section.
11.9. Women delivering within 18 months of a Cesarean section should be counselled about an increased risk of uterine rupture in labor.
11.10. Postdatism is not a contraindication to a TOL after Cesarean section.
11.11. Every effort should be made to obtain the previous Cesarean section operative report to determine the type of uterine incision used. In situations where the scar is unknown, information concerning the circumstances of the previous delivery is helpful in determining the likelihood of a low transverse incision. If the likelihood of a lower transverse incision is high, a TOL after Cesarean section can be offered.

12. Obstetric Unit Requirements for Cesarean Deliveries

12.1. All hospitals offering obstetric services as part of their maternity services should have the appropriate staff and resources to perform a safe and prompt Category 1 Cesarean deliveries.
12.2. Hospitals providing less complex care should have the capacity to refer a woman requiring more complex care to more qualified perinatal staff for advice and, when required, to facilities able to provide more advanced care whilst providing the clinical capabilities to support the obstetric woman.
12.3. The obstetric facility that provides cesarean deliveries should have the following as a minimum:
12.3.1. Continuous fetal monitoring.
12.3.2. Emergency anesthesia services.
12.3.3. Maternal intensive care unit or transfer arrangements for the patients to a maternal intensive care unit in another healthcare facility as and when needed.
12.3.4. NICU level 1, 2, 3 or 4 depending on the case mix of the obstetric population.
12.3.5. Well-defined scope of work and privileging criteria for physicians. It is recommended that the following be considered at renewal of privileging:
- Patient volume (Number of deliveries conducted).
- C-section percentage (of all deliveries)
- Case-mix index of the patients seen by the physician.

12.3.6. Effective monitoring of C-sections rates within facilities such as use of the Robson Classification to compare and evaluate effectiveness of interventions to minimize unnecessary C-sections.

13. Reviewers:

Name of Reviewer	Profession	Organization
Dr. Ali Al-Ibrahim	Consultant	Kanad Hospital
Dr. Brenda McLaughlin	Chief Medical Officer	Kanad Hospital
Dr. Paul Bosio	Chief Medical Officer	Corniche Hospital
Dr. Aruna Kumari	Consultant	Burjeel Hospital
Dr. Mini Ravi	Consultant	Sheikh Shakhbout Medical City
Dr. Farah Asghar	Consultant	Sheikh Shakhbout Medical City
Dr. Maha Majeed	Consultant	Mediclinic Hospital
Dr. Feroza Dawood	Consultant	Mediclinic Hospital
Dr. Iram Siddiqui	Consultant	Mediclinic Hospital
Dr. Dina Ahmed Hewaidy	Advisor	DOH Healthcare Quality

14. Bibliography

1. Timing of elective caesarean section at term. Women's Health Committee (RANZCOG). March 2018. https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Timing-of-elective-caesarean-section-(C-Obs-23)-March18.pdf?ext=.pdf
2. No. 155-Guidelines for Vaginal Birth After Previous Caesarean Birth. The Society of Obstetricians and Gynaecologists of Canada. March 2018 https://doi.org/10.1016/j.jogc.2018.01.014
3. Non-clinical interventions to reduce unnecessary caesarean sections: WHO recommendations. Bulletin of the World Health Organization 2020;98:66-68. doi: http://dx.doi.org/10.2471/BLT.19.236729
4. Cesarean Delivery on Maternal Request. ACOG Committee Opinion No. 761. American College of Obstetricians and Gynecologists. Obstet Gynecol 2019; 133: e73 -7. https://www.acog.org/-/media/project/acog/acogorg/clinical/files/committee-opinion/articles/2019/01/cesarean-delivery-on-maternal-request.pdf
5. Caesarean section; Clinical guideline [CG132] Published date: 23 November 2011 Last updated: 04 September 2019. https://www.nice.org.uk/guidance/cg132
6. WHO recommendations non-clinical interventions to reduce unnecessary caesarean sections, World Health Organization, 2018.

This guideline is designed for regulatory procedures and should not be used as content for media publication"