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TITLE: Birth After Caesarean (BAC)

Contents

1. Purpose

This guideline outlines the best practice for care of women with previous caesarean, whether having a trial of labour (TOL) or an elective repeat caesarean section (ERCS).

Women should be well-informed of the main reason for their previous caesarean section, the risks and benefits of each mode of birth in her current pregnancy, whether they are clinically eligible for TOL, and an individualised likelihood of achieving vaginal birth after caesarean section (VBAC).

It is important that all decision making regarding mode of birth involves the woman, Lead Maternity Carer (LMC) and Consultant Obstetrician, as per Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines, 2012).

2. Scope

This guideline applies to all Te Whatu Ora Lakes Obstetric Medical and Midwifery staff and Lead Maternity Carers (LMC's) and the women they provide care for.

3. Definitions

BP	Blood Pressure
CTG	Cardiotocograph
EFM	Electronic Fetal Monitoring
EFW	Estimated Fetal Weight
ERCS	Elective Repeat Caesarean Section
IV	Intravenous
LMC	Lead Maternity Carer
LSCS	Lower Section Caesarean Section
MOH	Ministry of Health
TOL	Trial of Labour
VBAC	Vaginal Birth After Caesarean

4. Background

There are increasing rates of primary caesarean sections which are leading to a larger proportion of women presenting with a history of prior caesarean section.

Women with a prior history of an uncomplicated lower segment caesarean section, in an otherwise uncomplicated pregnancy, should be given the opportunity to discuss the birth options of planned trial of labour (TOL) or elective repeat caesarean section (ERCS) early in the course of their antenatal care.

Each option – either labour with a view to safe vaginal birth, or planned caesarean section - has both potential risks and benefits. The decision about mode of birth should consider the individual woman's preferences and priorities and include discussion about the individual and general risks and benefits of TOL and ERCS. This discussion about mode of birth should occur between the woman, an Obstetrician and the LMC.

5. Management - Antenatal

Initial Antenatal Clinic Consultation

Women who have had a previous caesarean section should;

- be referred to Antenatal Clinic at approximately 20 weeks' gestation (Ministry of Health (MOH) Referral Guidelines)
- have clinical records of previous caesarean section surgeries ordered

At the consultation:

- Previous clinical records should be reviewed for the course of labour, reasons for, and surgical issues with, the previous caesarean section(s), type of uterine scar etc.
- Options for mode of delivery should be discussed with the woman
- The individual and general risks and benefits of the birth options should also be discussed
- Discuss the individual woman's chances of success for VBAC and document this in the clinical record.
- Provide the woman with an information leaflet about 'Birth After Caesarean Section'

Antenatal discussion should include informing the woman of likely successful outcome (average 70%), risk of scar rupture and possible consequences, and recommended monitoring and location for labour and birth.

Benefits and Risks of TOL

Women with a prior history of one uncomplicated lower segment caesarean section, in an otherwise uncomplicated pregnancy at term, with no contraindications to vaginal birth, should be encouraged to aim for planned VBAC.

Women considering their options for birth following a single previous lower segment caesarean section, should be informed that, overall, according to the international literature, their chances of VBAC are approximately **70%**. These chances are further increased if they have also had a previous vaginal birth.

Factors associated with reduced chance of successful TOL are;

- Maternal obesity – BMI >30
- Maternal age > 40 years
- No previous vaginal birth
- Fetal macrosomia – EFW and/or abdominal circumference >/= 95th centile for gestation
- Induction of labour
- Previous caesarean section for labour dystocia
- More than one previous caesarean section

Benefits and Risks of TOL cont'd.

Women considering the options for birth after a previous caesarean should be informed that **ERCS does increase the risk of;**

- heavy bleeding requiring blood transfusion
- infection
- a longer stay in hospital
- **serious complications in future pregnancies** which includes placenta praevia, placenta accreta and hysterectomy.

Women considering the options for birth after caesarean section should also be informed that planned TOL carries a **risk of uterine rupture of 0.5 – 0.7%** (five to seven women in every 1000). If this does occur, there is approximately a **one in seven chance of serious adverse outcome** (death or brain injury) for the baby and a risk of hysterectomy for the woman (RANZCOG, 2019).

Having a vaginal birth after previous caesarean section does decrease the caesarean related risks for future pregnancies.

Contraindications to TOL

There is limited evidence on whether maternal or neonatal outcomes are significantly influenced by the number of prior caesarean births or type of prior uterine scar. However, due to higher absolute risks, or unknown risks, of uterine rupture planned TOL is **contraindicated** in women with:

- Previous uterine rupture
- Previous 'classical' or 'inverted-T' caesarean section
- Unknown position of uterine scar
- Two or more previous caesarean sections
- Other absolute contraindications to vaginal birth e.g. major placenta praevia

Women with a prior history of **two uncomplicated** low transverse caesarean sections, in an otherwise uncomplicated pregnancy at term, with no contraindications for vaginal birth, who have been fully informed by a Consultant Obstetrician, may be considered suitable for a planned TOL.

Other Risk Factors for TOL

A **cautious approach** is advised when a woman is considering TOL with one or more of the following risk factors for uterine rupture, as there is uncertainty about the safety and efficacy of planned TOL in these situations;

- Twin pregnancy
- Short inter-delivery interval - less than 18 months
- Fetal macrosomia – EFW and/or abdominal circumference >/= 95th centile for gestation
- Post dates
- Maternal age > 40 years
- Maternal obesity – BMI >30

Subsequent Antenatal Clinic Consultation

- A plan for mode of birth should be agreed between the woman, the Obstetrician and her LMC before the expected/planned birth date (ideally by 36 weeks).
- Post term management and potential complications should be discussed and documented.
- Document a clear plan for labour and birth on the 'Maternity Care Plan Summary' form in the clinical record.
- This should include;
    - Any **specific additional risks** for this pregnancy i.e. short inter-delivery interval
    - The recommended **location for labour and birth**
    - **When** the woman is to present to hospital
    - The need for **close fetal monitoring** during labour
    - A **plan** in the event of labour starting prior to a scheduled date for ERCS
- Planned ERCS, where the reason is for previous caesarean section alone, should be booked for some time after 39+0 weeks' gestation

6. Management - Intrapartum

Intrapartum Care During Planned TOL

- Women should be advised that planned TOL should take place in a secondary/tertiary facility where there is access to electronic fetal monitoring (EFM) and an operating theatre.
- A woman undergoing planned TOL should be assessed in early labour and admitted to the secondary/tertiary facility.
    - N.B.: initial early labour assessment may take place at the primary facility but transfer to the secondary facility for ongoing monitoring should be arranged immediately unless birth is imminent
- Women should be advised to have continuous electronic fetal monitoring **following the onset of uterine contractions** and for the duration of labour (RANZCOG, 2019)
- If a woman declines EFM during TOL, counselling about the risk of a delay in diagnosis of uterine rupture due to the possibility of 'silent uterine rupture' and increased risk of injury to the fetus, should be given. A three-way conversation about what form of monitoring the woman will accept should follow. As a minimum, intermittent auscultation is suggested at 15 minute intervals during the first stage of labour and following every contraction in the second stage of labour (see Fetal Monitoring Guideline 2499498).
- Continuous (one to one) intrapartum midwifery care is required to enable the monitoring of progress in labour and prompt identification and management of uterine scar rupture.
- A partogram should be completed to monitor progress during labour
- Advise the woman that all analgesia options are available to her during TOL

Intrapartum Care During Planned TOL cont'd.

- Inform the on call Obstetric Registrar / Consultant Obstetrician of the following:
  - Abnormal progress in labour
  - CTG abnormalities
  - If delivery is not imminent after 30 minutes of effective pushing.

- If a woman presents in advanced labour to the rural primary unit and the assessment is that it is unsafe to transfer to a secondary/tertiary facility, intermittent auscultation is the monitoring of choice. The use of continuous CTG in labour in this setting is not supported.

N.B.: There is no requirement for a woman to have an intravenous (IV) line in labour for the indication of previous caesarean section alone – this can be inserted if and when required.

Induction and Augmentation of Labour

Although induction and augmentation of labour is not contraindicated, it should only be preceded by detailed obstetric assessment, maternal counselling and by a consultant-led decision.

Women should be informed of the increased risk of uterine rupture and of needing a caesarean section when induction or augmentation is required for/during TOL.

Discussion is recommended regarding the:

- Decision to induce
- Method of induction chosen – prostaglandins may increase the risk of scar rupture
- Decision to augment with oxytocin
- Time intervals for serial vaginal examination
- Progress in cervical dilatation that would prompt advice to discontinue the TOL

The above should be discussed and agreed with the woman and her LMC and a Consultant Obstetrician, either directly, or via the Obstetric Registrar who has discussed the specific situation with the Consultant.

During labour;

- Oxytocin augmentation should be titrated such that it should not exceed the maximum rate of contractions of four in 10 minutes; the ideal contraction frequency would be three to four in 10 minutes.
- Detailed serial cervical assessments, preferably by the same person, are necessary to ensure that there is adequate cervical progress to enable the TOL to continue.

Presentation in Labour When Planned Caesarean Section

If a woman, who has planned for ERCS, presents in labour;

- Advise the woman to be nil by mouth
- Insert an IV line and take bloods
- Notify the Obstetric Registrar or Consultant Obstetrician on call
- If clinically appropriate, offer the woman information about TOL, given labour has started
- Support woman's choice to change plan to TOL, or proceed with ERCS as soon as resources are available
- Ensure continuous fetal monitoring and adequate analgesia regardless of final decision about mode of birth
- Ensure theatre scheduler is informed when woman has delivered to remove woman from the elective caesarean section list

Management of Suspected Uterine Scar Rupture

Early diagnosis of uterine scar rupture, followed by rapid caesarean section and resuscitation is essential to reduce the associated morbidity and/or mortality in the mother and fetus/neonate.

There is no single clinical feature that is indicative of uterine rupture but the presence of any of the following should raise concern of the possibility of this occurring or having occurred and prompt a full clinical assessment;

- **Abnormal CTG** - the most common finding in uterine rupture and may include sudden changes in fetal heart rate pattern.
- **Abdominal pain** – severe, constant lower abdominal pain that worsens during contractions (plus or minus shoulder tip pain). May be accompanied by vomiting and suprapubic tenderness.
- **Raised maternal pulse rate** – may rise slowly
- **Blood loss** – fresh vaginal blood loss which may be mistaken for a "show"
- **Haematuria**
- **Cessation of contractions** – rupture may occur at the height of a strong contraction, whereupon the contractions cease.
- **Maternal shock** – faintness, tachycardia, hypotension.
- Fetal parts more easily palpable and **recession of the baby's head** from the pelvis.
- **Loss of station** of presenting part.
- Change in abdominal contour and i**nability to detect fetal heart rate** at the old transducer site
- **Undetectable fetal heart rate**
- **Dilatation** of the cervix regresses

Management of Suspected Uterine Scar Rupture cont'd.

Emergency Management If Suspected Uterine Rupture – **Secondary Facility**;

- Press emergency buzzer to obtain help
- Call 777 and include the Obstetric, Neonatal and Anaesthetic emergency teams
- Monitor maternal blood pressure (BP), pulse, oxygen saturations, calculate MEWS
- Expedite delivery - forceps delivery if feasible otherwise Category 1 emergency caesarean section
- Maternal oxygen at 6 litres via rebreathing mask, unless instructed by medical team to administer at a higher level
- Provide reassurance and emotional support to the woman and her whanau
- Document events and times as soon as practical

Emergency Management If Suspected Uterine Rupture – **Primary Facility**;

- Press emergency buzzer to obtain help
- Call 777 to obtain help from Emergency Department etc.
- Monitor maternal blood pressure (BP), pulse, oxygen saturations, calculate MEWS
- Maternal oxygen at 6 litres via rebreathing mask, unless instructed by medical staff to administer at a higher level
- Site IV line
- Call Operator and speak to Consultant Obstetrician on call
- Request emergency transport as per Consultant Obstetrician's instructions
- Complete Transfer Record (2632402) - prepare for transfer as per the checklist
- Transfer to secondary facility – documenting observations etc. enroute
- Provide reassurance and emotional support to the woman and her whanau
- Document events and times as soon as practical

7. Related Documentation

- Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines)
- Induction of Labour Guideline - 978951
- Fetal Heart Monitoring Guideline - 2499498
- Caesarean Section Guideline - 43075
- Maternity Assessment Referral – LMC Process – 219729
- Maternity Referrals and Models of Care Guideline – 2499420
- Maternity Care Plan Summary
- Transfer Record - 2632402

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