MATERNITY UNIT

GUIDELINE: Vaginal birth after caesarean section (VBAC)

SCOPE: All midwives and obstetricians working in Puawai Aroha maternity unit

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PURPOSE: To assist midwives and obstetrician in counselling women who have previously had a caesarean section, in order for the woman to make an informed choice as to the mode of subsequent birth.

To provide guidance on caring for a woman in labour who chooses to birth vaginally following previous caesarean section (CS).

DEFINITIONS:
Vaginal birth after caesarean section (VBAC)
Lead Maternity Carer (LMC)
Hypoxic Ischaemic Encephalopathy (HIE)

GUIDELINE
It is now widely accepted that vaginal birth may be attempted unless the indication for the previous CS recurs, the present pregnancy is complicated by another condition that warrants delivery by caesarean section or a high risk uterine incision was made. The reported overall success rate for women who plan a VBAC in Gisborne is approximately 60%.

Factors that increase the success rate of a VBAC

- Previous vaginal birth, especially successful VBAC, is the strongest predictor of success, with reported VBAC rates of 87-91%
- Spontaneous onset of labour
- Uncomplicated pregnancy without other risk factors

Factors that may reduce the success rate of a VBAC

- Previous Caesarean section for dystocia
- Induction of labour
- Coexisting fetal, placental or maternal conditions
- Maternal BMI greater than BMI>40
- Fetal macrosomia of 4 kg or more
- Advanced maternal age
- Short stature
- More than one previous Caesarean section
- Risk factors associated with an increased risk of uterine scar rupture

<u>Benefits of a successful VBAC</u>

- Following VBAC women experience a faster recovery, earlier mobilisation with fewer limitations and shorter hospital stay with less invasive procedures.
- Vaginal birth has a beneficial effect on the infant's microbiome which can contribute to overall lifelong health.
- Less maternal morbidity following this pregnancy and for future pregnancies.
- Avoidance of major surgery and multiple caesarean sections in future pregnancies.

- Improved gratification of birthing experience in achieving vaginal birth if this was desired.
- Breastfeeding is more likely to be initiated in the first hour after birth leading to a longer duration of breastfeeding.

Complications and risks per 1,000 attempted VBAC

Complication	Risks / 1,000 attempted VBAC
Uterine Rupture	5-7/1000 (0.5 to 0.7%)
Perinatal Death	0.4-0.7/1000
Maternal Death	0.02/1000
Major maternal morbidity	Approx. 3/1000
• Hysterectomy	0.5-2/1000
• Genitourinary injury	0.8/1000
• Blood transfusion	1.8/1000
Major perinatal morbidity	Approx. 1/1000
• Fetal acidosis (cord pH <7.0)	1.5/1000
• HIE	0.4/1000

Benefits and risks of elective repeat caesarean section at 39 weeks

Benefits	Risks
Avoid late stillbirth (after 39 weeks)	Surgical morbidity and complications both with index pregnancy and further pregnancies
Reduced perinatal mortality and morbidity (especially HIE) related to labour, delivery and scar rupture	Increased risk of neonatal respiratory morbidity – low incidence ≥ 39 weeks gestation
Reduced maternal risks associated with emergency Caesarean section	Associated with lower rates of initiating breast feeding
Avoidance of trauma to the maternal pelvic floor	
Convenience of planned date for birth	

- It is the responsibility of the LMC, in conjunction with the obstetrician, to inform the woman and her partner of the benefits and risks of VBAC. Respect should be given to the woman's right to make an informed choice regarding mode of birth, considering her wishes, her perception of the risks and her plans for future pregnancies.
- While women electing VBAC require the highest level of care that they are able to receive and accept, willingness of a healthcare provider to administer care in risk-prone circumstances cannot be misinterpreted as de facto support for sub-standard care.
- Every woman should be debriefed following her first and any subsequent CS to discuss the reason for her CS and her chances of achieving a VBAC in future pregnancies including the risks and benefits of VBAC and her intended size of family.
- 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 VBAC or elective caesarean section early in the course of their antenatal care, preferably by 20 weeks gestation with the obstetrician and LMC.
- The woman's clinical records documenting her CS are to be made available at the time of consultation – if she birthed at another unit this is to be arranged by the LMC

- Women considering options for birth after a previous caesarean section should be informed that ERCS may increase the risk of serious complications in future pregnancies.
- A final decision regarding mode of birth should be agreed between the woman, obstetrician and her LMC before the expected/planned delivery date (ideally by 36 weeks gestation). A plan in the event of labour starting prior to a scheduled ERCS should be agreed and documented if this was the woman's choice.
- Recommend continuous foetal monitoring during labour and the insertion of an intravenous cannula and bloods taken on admission if a VBAC is chosen. If the woman declines any of these, clearly record this in her records.
- Informational materials, including the RANZCOG treatment information pamphlet 'Vaginal birth after caesarean section' should be given to the woman prior to the consultation with the specialist or at the first visit with the specialist
- Women should be informed that Gisborne Hospital does not provide immediate access to obstetric, paediatric, anaesthetic and operating theatre personnel as recommended by the RANZCOG guidelines and the New Zealand Guidelines Group. In the event of an obstetric or neonatal emergency, there may be a delay in care that could affect outcome.

Management of First Stage of labour

- Woman for trial of labour should be advised to come into the Maternity Unit at the onset of established labour.

- On admission to the unit the LMC will:
  1. Assess the woman - abdominal palpation, baseline observations, urinalysis, auscultate foetal heart, vaginal examination – all to be documented in the woman's clinical records
  2. Perform an admission CTG
  3. Intrapartum care should have been discussed with the obstetrician, the LMC and whanau and an agreed care plan entered into the woman's clinical notes by the obstetrician and LMC
  4. **If there are any concerns about foetal or maternal well-being at any time, the obstetrician is to be notified promptly.**
  5. Cannulate for IV access, draw blood for CBC and Group and Hold, and send to laboratory

- In active labour (i.e. regular painful contractions and >6cms dilated) there should be regular (at least every 4hours) vaginal examinations to assess progress – i.e. dilatation of the cervix, position of the fetus and descent of the presenting part. The cervix should dilate at least at 1cm per hour in the active phase of labour.

- Continuous electronic fetal monitoring is advised in established labour, and must include both contractions and fetal heart monitoring. A cordless CTG monitor is available for this purpose so that the woman may still mobilise if a good trace can be obtained. Inform the woman that remaining active increases her chances of having a successful vaginal birth.

- Use of the birthing pool is not contra-indicated for VBAC and can promote active birth but a discussion on its use and fetal monitoring should have been included during the antenatal period between the LMC and the woman. If she chooses to use the birthing

pool then the cordless CTG monitor can be used as this is waterproof. If continuous fetal monitoring is declined then intermittent fetal monitoring must be undertaken.

- Epidural analgesia may be considered if requested and anaesthetist available. It is recommended that a discussion about pain management options take place during the antenatal period between the woman and her LMC. The idea of an epidural that may allow for a vaginal birth versus a spinal with surgery can be visited then.

- Medical induction of labour and augmentation of labour with Syntocinon should be undertaken with caution and great care as studies have shown these to increase the risk of uterine rupture.

Management of Second Stage of Labour

Plan to avoid a prolonged expulsive phase. Passive descent may be considered prior to active pushing commencing. Encourage upright positions and avoid use of bed.

- Second stage should not exceed an hour in duration without obstetric consultation unless birth is imminent.

Signs of possible scar rupture - NOTE SCAR RUPTURE MAY BE SUBTLE/SILENT

- Fetal heart rate abnormality (the most common sign)
- Vaginal bleeding
- Cessation of labour
- Haematuria
- Ascent of presenting part (loss of station)
- Pain not controlled by epidural
- Lower abdominal tenderness – classically suprapubic pain and diaphragmatic pain, but note scar pain and tenderness is an unreliable sign
- Failure to progress in labour especially in the second stage
- Maternal tachycardia

The possibility of unrecognised scar rupture must be considered if:

- Fetal heart rate is abnormal during labour
- Bleeding continues following the birth despite a well contracted uterus.
- The mother suffers from unexplained symptoms of shock.

Be cautious if fetal or maternal observations show any sign of deviating from the normal at any time.

Management of Third Stage of Labour

VBAC increases the risk of postpartum haemorrhage and active management of the third stage is recommended.

ASSOCIATED DOCUMENTS

Maternity guideline – Syntocinon for induction or augmentation of labour
Maternity guideline – Obstetric and neonatal emergencies
Maternity guideline – Uterine Rupture
Maternity guideline – Intrapartum fetal heart rate assessment and monitoring
Maternity guideline – Use of birth pool

REFERENCES

Maternity Services – Notice Pursuant to Section 88 of the New Zealand Public Health and Disability Act 2000. 1 July 2007

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2019) Birth after previous caesarean section (C-Obs 38)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Birth-after-previous-Caesarean-Section-(C-Obs-38)Review-March-2019.pdf?ext=.pdf

New Zealand College of Midwives: Consensus Statement: Vaginal Birth after Caesarean Section (2019)
https://www.midwife.org.nz/wp-content/uploads/2019/05/Vaginal-Birth-after-Caesarean-Section.pdf

The American College of Obstetricians and Gynaecologists: Vaginal Birth After Cesarean Delivery (2019)
https://journals.lww.com/greenjournal/Abstract/2019/02000/ACOG_Practice_Bulletin_No__205__Vaginal_Birth.40.aspx

Royal College of Obstetricians and Gynaecologists Birth after Previous Caesarean Birth (Green-top Guideline No. 45); Oct 2015 (current as of Nov 2019)
https://www.rcog.org.uk/globalassets/documents/guidelines/gtg_45.pdf

RANZCOG Vaginal Birth after Caesarean Section: A Guide for Women (2016)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Patient%20information/Vaginal-birth-after-caesarean-pamphlet.pdf?ext=.pdf

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