Clinical Guideline for: The Management of Vaginal Birth after Caesarean (VBAC)

Document Control:

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V9.0	March 2023	Sam Brabazon	Edited to add in most recent NMPA Data. Document transferred to new Trust procedural document template

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:
Daisy Nirmal, Consultant NNUH

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to NNUH; please refer to local Trust's procedural documents for further guidance.

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1. Introduction

1.1. Rationale

Women who have had caesarean section in previous births have two options for their care in a subsequent pregnancy: planned elective repeat caesarean section (ERCS) or planned vaginal birth (VBAC) (1).

Both options have inherent benefits and risks. However, there is evidence of a more favourable benefit-risk ratio for planned vaginal birth after one caesarean section compared with repeat caesarean section (2).

1.2. Objective

Our aim is to provide guidance to all the members of staff involved in the care of pregnant women who had a caesarean delivery for whatever reasons in their previous labours.

1.3. Scope

This document covers the provision of care for women and birthing people who have previously had a caesarean section in their plans for birth at the NNUH

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
VBAC	Vaginal Birth after Caesarean
CTG	Cardiotocograph
IOL	Induction of Labour
ERCS	Elective Caesarean Section
BMI	Body Mass Index
ARM	Artificial Rupture of Membranes
IOL	Induction of labour
CS	Caesarean Section
FBC	Full Blood Count
IV	Intravenous
FD	Full Dilatation
FAS	Fetal Anomaly Scan
TRA	Thromboprophylaxis Risk Assessment
PET	Pre-eclampsia
GDM	Gestational Diabetes

2. Responsibilities

2.1. Responsibilities of relevant staff groups

Where there are no apparent contraindications to VBAC following a first caesarean section, ideally, the discussion on the mode of delivery in subsequent pregnancies should be initiated on the postnatal ward prior to discharge from hospital. This discussion should be documented clearly in the maternity records. The patient should be given the “Birth options after previous caesarean section” leaflet: https://www.rcog.org.uk/en/patients/patient-leaflets/birth-after-previous-caesarean/

3. Policy Principles

3.1. Success rates for VBAC

Studies suggest an overall success rate for planned VBAC of about 70-75% following one caesarean section. Women with previous vaginal births should be informed that previous vaginal delivery, particularly previous VBAC, is the single best predictor of successful VBAC and is associated with a success rate of 85–90% (3). However the most recent national audit data reports the overall success rate of a planned VBAC is 61%. (4)

Greater maternal height, maternal age less than 40 years, BMI less than 30, gestation of less than 40 weeks and infant birthweight less than 4 kg (or similar/lower birthweight than index caesarean delivery) are associated with an increased likelihood of successful VBAC.

Successful VBAC is more likely among women with previous caesarean for fetal malpresentation (84%) compared with women with previous caesarean for either labour dystocia (64%) or fetal distress (73%) indications. (3)

3.2. Risks and benefits associated with VBAC (which the mother should know)

- Successful VBAC has the fewest complications.
- The greatest risk of adverse outcomes occurs when a planned VBAC results in an emergency caesarean section.
- Spontaneous, planned VBAC has a 1:200 risk of uterine rupture.
- The absolute risk of birth-related perinatal death associated with VBAC is extremely low (4:10,000) and comparable to the risk of a nullip in labour.
- The risk of perinatal death with ERCS is also extremely low but there is an increased risk of neonatal respiratory morbidity before 39+0 weeks gestation.
- ERCS is associated with a small increased risk of placenta praevia/accreta complicating any future pregnancies. Pelvic adhesions may complicate any future abdomino-pelvic surgery.

3.3. Indications for VBAC

The vast majority of women who have had a caesarean section in a previous delivery, who desire a vaginal birth in the current pregnancy, are good candidates for VBAC.

3.4. Contraindications for VBAC

The only absolute contraindications are previous uterine rupture, previous classical caesarean section and other absolute contraindications to vaginal birth e.g. Major placenta praevia.

3.5. Relative contraindications / Caution

- Previous T/J shaped incisions on the uterus or uterine angle extensions.
- Significant uterine surgery, e.g. open myomectomy.

- Previous B-Lynch sutures.
- Multiple pregnancy.
- Breech presentation.
- Fetal macrosomia.

3.6. Induction of labour (IOL) in women who have had one previous caesarean

- Women can choose to have an ERCS if they do not go into labour spontaneously.
- Women must be carefully counselled about the risks of IOL. Induction of labour after previous casearean section: PIL
- Women should be offered cervical sweeps from 40 weeks gestation.

The risk of uterine scar rupture is 1:200 (0.5%) in spontaneous labour. We no longer use prostin for IOL in this group due to the unacceptably high risk of uterine rupture in our unit. ARM +/- an oxytocin drip 4 hours later, remains an acceptable method but is not always possible if the cervix is unfavourable. In this situation, we are now using Foley catheters to dilate the cervix for up to 12 hours so that hopefully, ARM then becomes possible. If it is not then possible to break her waters she will be advised to have a repeat caesarean. Data regarding the risk of various IOL methods are conflicting but the greatest quoted risk is 3:200 (1.5%).

- Offer continuous CTG to women with a previous CS if performing amniotomy (5).
- When discussing oxytocin for delay in the first or second stage of labour explain to women that this reduces the chance of another caesarean but increases the chance of an instrumental birth.

3.7. Two or more previous caesareans

- Whilst it is common practice to offer elective caesarean section following two or more caesarean sections, most studies indicate no greater maternal or fetal risks compared with women with one previous caesarean section (6).

Counselling **must** involve a senior obstetrician and should include the risk of uterine rupture and maternal morbidity, and the individual likelihood of successful VBAC.

3.8. Antenatal care:

3.8.1. Booking in VBAC Clinic

The VBAC clinic was instigated in order to try and standardise care in this patient group. The woman will be seen once the dating scan has confirmed a viable pregnancy. Risk factors over and above her previous caesarean will be identified. All other aspects of the woman's care are in common with those of women coming via the routine antenatal clinic.

The options of planned VBAC and an ERCS should be discussed with the patient including the relative risks and benefits of each option and be clearly documented in the notes. This should be supported with appropriate information leaflets where

applicable. The indications and circumstances of a previous CS and the outcomes of subsequent pregnancies if applicable should be reviewed by a senior obstetrician and clearly documented at the hospital booking visit. If the previous caesarean was at full dilatation cervical length scan should be offered with the Fetal Anomaly Scan.

If the caesarean was performed elsewhere, then reasonable effort must be made to obtain the appropriate details from the relevant maternity unit. If there is no contraindication to VBAC, and the woman is keen to deliver vaginally, then an individualised management plan for the labour must be agreed by the woman and the obstetrician. This can be at the time of the booking visit or in the third trimester (36 weeks) if the woman remains uncertain as to whether she wishes to proceed with VBAC.

If, following review of the records, there is an obvious contraindication to VBAC, or if the patient requests a repeat CS, then an elective CS should be arranged from 39 weeks gestation. If no antenatal problems are anticipated, then there is no clinical reason why the woman need attend the hospital again until the pre-CS assessment clinic visit.

Women aiming for VBAC as opposed to planned ERCS should have an antenatal clinic appointment for 38-39 weeks where they will have a discussion about postdates management including the options of post-dates induction and post-dates ERCS in place of induction of labour. Cervical sweeps will be offered if appropriate.

During their antenatal care, a discussion with the woman should take place regarding contraception, especially if having an elective C/S or having multiple C/S.

The agreed management plan via any clinic, should include reference to the following:

a. Place of labour and delivery:

   Labour and delivery is recommended to be on delivery suite (Consultant-led unit) as opposed to at home or on the midwife-led birthing unit (MLBU).

   However, we will support patient choice following a thorough discussion of the risks and benefits of all birth options. Arrangements need to be in place for those having VBAC to deliver in hospital when labour commences.

b. Fetal and maternal monitoring – See below.

3.8.2. Individual management plan for labour – Early labour

All women should be advised to present in labour at the earliest sign of labour for careful assessment. It is important that women are looked after in hospital in early labour because uterine rupture can occur at this stage in addition to established active labour.

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3.8.3. Management of women in established labour

- Although routine cannulation is not recommended by NICE, where a delay in securing access is anticipated due to specific patient factors, it may be recommended on an individualised basis e.g. poor venous access
- The Registrar or Consultant must be made aware that the woman is on Delivery Suite.
- Women should have access to an effective analgesia of their choice. Epidural anaesthesia is not contraindicated.
- Regional anaesthesia is associated with a reduced chance of another CS and an increased chance of instrumental delivery (5).
- All women in established labour should be advised to have continuous electronic fetal monitoring. Wireless monitoring, providing an adequate tracing is obtained, is acceptable.
- Women can be supported in their choice to labour or deliver in the birthing pool as long as continuous CTG monitoring can be easily performed. Appropriate risk assessment needs to be performed and take into account any co-morbidities, including BMI, that may mean water birth is not appropriate. There must be explicit documentation that in the event of an emergency such as uterine rupture or CTG concerns it would take an unacceptable length of time to 'float' the woman off the surface of the pool and this can potentially lead to neonatal or maternal morbidity/ mortality.
- Uterine contractions should be palpated to assess strength and resting uterine tone.
- There should be a clear plan on assessment of labour progress.
- Use of the partogram is recommended in all cases.
- In the event of any delay in progress, decision for augmentation or other intervention should be discussed with the consultant on call.
- Staff must be aware and be alert to signs of scar dehiscence/rupture which is detailed below:
- Symptoms and signs of scar dehiscence/rupture (NB scar dehiscence may be "silent")
    1. Persistent CTG abnormalities (commonest finding).
    2. Vaginal bleeding.
    3. Uterine scar tenderness.
    4. Pain between contractions.
    5. Cessation of contractions.
    6. Pain "breaking through" epidural analgesia or excessive epidural requirements.
    7. Maternal tachycardia, hypotension, shock.
    8. Palpation of fetal parts outside the uterus.
    9. Haematuria.

10. Loss of station of the presenting part

The presence of any of these symptoms/signs requires urgent senior registrar review. Cross-reference:

See Trustdocs Id: 889 (Guidelines on the management of sudden unexplained obstetric collapse) for further management of uterine rupture.

4. References

1. Dodd JM, Crowther CA, Huertas E, et al. Planned elective repeat caesarean section versus planned vaginal birth for women with a previous caesarean birth, Cochrane Database of Systematic Reviews December 2013
2. Cahill A G, Stamilio DM, Odibo AO et al. Is vaginal birth after caesarean (VBAC) or elective repeat caesarean safer in women with a prior vaginal delivery? American Journal of Obstetrics and Gynecology 2006; 195:1143-1147.
3. Royal College of Obstetricians and Gynaecologists. Green-top guideline No. 45 Birth after previous caesarean section. October 2015 London: RCOG. Available at: www.rcog.org.uk
4. NMPA Project Team. *National Maternity and Perinatal Audit: Clinical Report 2022. Based on births in NHS maternity services in England and Wales between 1 April 2018 and 31 March 2019*. London: RCOG; 2022.
5. NICE Clinical Guideline 121 Intrapartum care for women with existing medical conditions or obstetric complications and their babies 2019
6. NICE Clinical Guideline 132 Caesarean Section November 2011
7. NICE Clinical Guideline 62 Antenatal Care; Antenatal care for uncomplicated pregnancies March 2008
8. The National Sentinel Caesarean section Audit Report RCOG Clinical Effectiveness Support Unit October 2001 RCOG Press

5. Monitoring Compliance

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Documented antenatal discussion on mode of delivery (target 100%, no exceptions).	Audit	VBAC Lead	Obstetric Governance	Yearly
Documented individualised management plan for labour (target 100%, no exceptions).	Audit	VBAC Lead	Obstetric Governance	Yearly
Documented plan for induction of labour that must involve a consultant obstetrician (target 100%, no exceptions).	Audit	VBAC Lead	Obstetric Governance	Yearly
Continuous CTG monitoring in established labour (target 100%, no exceptions).	Audit	VBAC Lead	Obstetric Governance	Yearly
Documented plan for the place of labour (target 100%, no exceptions).	Audit	VBAC Lead	Obstetric Governance	Yearly

The audit results are to be discussed at relevant governance meetings to review the results and recommendations for further action. Then sent to Obstetric Governance who will ensure that the actions and recommendations are suitable and sufficient.

6. Appendices

6.1. Appendix 1: Birth Choices Counselling Clinical Care Pathway

Age: Parity: BMI:

TRA: PET Risk: GDM Risk:

Risk factors:

Previous delivery details:

If CS at FD cervical length scan with FAS

Clear contraindications to VBAC:

If delivered in another unit, letter regarding suitability for VBAC sent

Options below discussed:

1. **VBAC (Vaginal Birth after Caesarean Section)**

   Successful VBAC has the fewest complications.

   RCOG guidance states Likelihood of successful VBAC:

   1 previous CS, no previous vaginal birth 3 out of 4 or 72-75%.

   1 previous CS, at least 1 previous vaginal delivery 9 out of 10 or up to 85-90%.

   However the most recent national audit data reports the successful planned VBAC rate at 61%. Our successful VBAC rate is displayed in the ANC office and should be quoted to women and birthing people

   The absolute risk of birth-related perinatal death associated with VBAC is extremely low (4:10,000 cases) and comparable to the risk of a first time labour. VBAC requiring an emergency caesarean section has the highest risk of surgical complications.

   Risk of Uterine rupture/de-hiscence is 1 in 200 women or 0.5% with associated serious fetal and maternal morbidity.

Recommend continuous monitoring in labour.

Recommend birth on consultant delivery suite.

Labouring in water is possible with the use of wireless monitoring but understands limited availability of the pool and in an emergency, this is likely to delay treatment.

Increased likelihood of successful VBAC discussed which include Age <40, BMI<30, Gestation <40 weeks, estimated fetal weight <4kgs.

Offer a membrane sweep with community midwife at 39 weeks unless contraindicated.

2. **Elective Caesarean Section in 39th week of pregnancy**

Predictable and usually discharge from hospital within 24 hours but carries the risk of a major abdominal operation – delayed return to normal activities of daily living, pain, bleeding, infection, return to theatre, 1% risk of inadvertent injury to abdominal structures including bowel, bladder, ureters, blood vessels, clots development in legs and lungs, increased likelihood of scar tissue, placenta praevia and adherent placenta in future pregnancies and risk of transient respiratory and breathing difficulties in baby of 4-6 %.

Contraception including sterilisation at the time of caesarean section discussed.

3. **Spontaneous labour prior to agreed Caesarean day plan**

Choice of Emergency Caesarean Section vs VBAC at patient choice.

Important to be mindful of the extent of cervical dilatation on presentation to hospital where it may be safer or recommended to attempt a VBAC if the cervix is >8cm dilated due to increased complication rate at caesarean section.

4. **Post-term dates discussion**

Discussed decision making if chose VBAC and did not labour before 40 weeks and 10 days. Offer expedited delivery for post-dates indication from T+7 onwards.

Elective Caesarean Section vs Induction of Labour. Mechanical induction of labour using balloon catheter to ripen the cervix over 12 hours followed by artificial rupture of membranes on delivery suite with the option of oxytocin drip if does not labour after 4 hours. Low threshold to deliver by emergency caesarean section if any concerns

Risk of Uterine rupture/de-hiscence Associated chance of scar de-hiscence is increased to 2-3:200 labours (2-3 fold increase) but has the best chance of successful vaginal birth and the chance of requiring an emergency caesarean section is increased by 1.5 fold.

5. **Individualised patient management plan**

a.) Clear decision for

b.) Leaning towards a particular decision for

c.) Undecided

d.) See/telephone/virtual 34 weeks gestation for decision and final individualised plan

May require earlier depending on other obstetric risk factors that may require serial scans

e.) Send caesarean section and VBAC patient information leaflets

Addendum for entry in specific circumstances:

6. **Can women with two or more prior caesareans be offered planned VBAC?**[1]

A multivariate analysis showed that there was no significant difference in the rates of uterine rupture in VBAC with two or more previous caesarean births. It is notable that more than half of the women with two previous caesarean deliveries had also had a previous vaginal birth and 40% had a previous VBAC. Hence, caution should be applied when extrapolating these data to women with no previous vaginal delivery.

A systematic review has suggested that women with two previous caesarean deliveries who are considering VBAC should be counselled about the success rate (71.1%), the uterine rupture rate (1.36%) and the comparable maternal morbidity to the repeat caesarean delivery option. The rates of hysterectomy (56/10 000 compared with 19/10 000) and transfusion (1.99% compared with 1.21%) were increased in women undergoing VBAC after two previous caesarean births compared with one previous caesarean birth.

7. Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	Women's and Children	**Department**	O&G
Name of person completing form	Sam Brabazon	**Date**	2/3/23

	Potential	Impact	Which groups	Full Impact

Equality Area	Negative Impact	Positive Impact	are affected	Assessment Required YES/NO
Race	Nil	Nil	Nil	No
Pregnancy & Maternity	Nil	Increased information about likelihood of successful VBAC	Previous Caesarean Section	No
Disability	Nil	Nil	Nil	No
Religion and beliefs	Nil	Nil	Nil	No
Sex	Nil	Nil	Nil	No
Gender reassignment	Nil	Nil	Nil	No
Sexual Orientation	Nil	Nil	Nil	No
Age	Nil	Nil	Nil	No
Marriage & Civil Partnership	Nil	Nil	Nil	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?	No change			

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.