Our Vision
To provide every patient with the care we want for those we love the most

NHS
Norfolk and Norwich University Hospitals
NHS Foundation Trust

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

For Use in:	Delivery Suite
By:	Midwives and Obstetricians
For:	Antenatal and Intrapartum care
Division responsible for document:	Women and Children
Key words:	Planned vaginal birth after caesarean section (VBAC), repeat caesarean section, maternal monitoring, fetal monitoring in labour.
Name of document author:	Daisy Nirmal
Job title of document author:	Consultant
Name of document author's Line Manager:	Richard Smith
Job title of author's Line Manager:	Clinical Director
Supported by:	Charles Bircher, Consultant Jon Larty, Consultant
Assessed and approved by the:	Maternity Guidelines Committee (MGC) If approved by committee or Governance Lead Chair's Action; tick here ☑
Date of approval:	27 May 2021
Ratified by or reported as approved to (if applicable)**:**	Clinical Guidelines Assessment Panel (CGAP)
To be reviewed before:	03 January 2023
To be reviewed by:	Daisy Nirmal
Reference and / or Trust Docs ID No:	AO29 Trustdocs id 895
Version No:	8
Compliance links: *(is there any NICE related to guidance)*	NICE Clinical Guideline 132 Caesarean Section November 2011. NICE Clinical Guideline 62 Antenatal Care; Antenatal care for uncomplicated pregnancies March 2008. NICE Clinical Guideline 121 Intrapartum care for women with existing medical conditions or obstetric complications and their babies March 2019.
If Yes - does the strategy/policy deviate from the recommendations of NICE? If so why?	NICE Clinical Guideline 121 advice that we do not routinely insert an IV cannula in labour in women who have a VBAC. This was discussed at obstetric clinical Governance meeting July 2019 and we have chosen to deviate from this advice and would recommend an IV cannula in established labour.

Version and Document Control:

Version Number	Date of Update	Change Description	Author
8	27/05/2021	Appendix 1 removed and replaced with newer pathway	Daisy Nirmal

This is a Controlled Document

Printed copies of this document may not be up to date. Please check the hospital intranet for the latest version and destroy all previous versions.

Broad recommendations

Women should be supported to make an informed choice about mode of delivery of a pregnancy following a previous caesarean birth.

Planned vaginal birth is appropriate for and may be offered to the majority of women with one previous lower segment caesarean section. It has benefits to the woman but the possible associated risks must be clearly explained and backed with an information leaflet [M3][1].

It is expected that most women will come via the Vaginal Birth After Caesarean (VBAC) clinic. A clear individual management plan will be documented in the electronic patient records (E3). (Appendix 1)

Women with other comorbidities, or those who cannot be accommodated in the VBAC clinic, are seen in relevant consultant-led specialist clinics.

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). [2]

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. [3]

A strategy to reduce the rising caesarean section rate is by promoting planned VBAC. Repeat caesarean sections should only be done after careful discussion.

Objectives:

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.

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%.(1)

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. (1)

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.

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.

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.

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.

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 (information leaflet [M74]).
- 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 confusing but the greatest quoted risk is 3:200 (1.5%).

- Offer continuous CTG to women with a previous CS if performing amniotomy (7).
- 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.

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[5]

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

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/

Antenatal care:

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 CS was performed elsewhere, then reasonable 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 individual 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.

VBAC women should have an appointment for 40+ weeks where they will have a discussion about IOL/ERCS and are offered a cervical sweep if appropriate.

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.

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 in a consultant-led unit and not on MLBU is recommended. Women should be advised against home birth, although we will support them in their birth choices Arrangements need to be in place for those having VBAC to deliver in hospital when labour commences.

b. Fetal and maternal monitoring – See below.

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 time as well as in later labour.

.

Management of women in established labour

- We would recommend that women in established labour should have intravenous access, and blood sent for a FBC and group and save.
- Ranitidine, 150 mg orally should be prescribed every 6 hours through labour. The SpR/ Staff Grade 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 (7).
- 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.

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.

Auditable standards

The Maternity Services are committed to the philosophy of clinical audit, as part of its Clinical Governance programme. This standards contained in this clinical guideline will be subject to continuous audit, with multidisciplinary review of the audit results at one of the monthly departmental Clinical Governance meetings. The results will also be summarised and a list of recommendations formed into an action plan, with a commitment to re-audit within three years, resources permitting.

The following standards should be audited on a regular basis:

1. Documented antenatal discussion on mode of delivery (target 100%, no exceptions).
2. Documented plan for the place of labour (target 100%, no exceptions).
3. Documented individualised management plan for labour (target 100%, no exceptions).
4. Documented plan for induction of labour that must involve a consultant obstetrician (target 100%, no exceptions).
5. Continuous CTG monitoring in established labour (target 100%, no exceptions).

Summary of development and consultation process undertaken before registration and dissemination

The authors listed above drafted this guideline on behalf of obstetric guidelines committee.

This version has been endorsed by the Maternity Guidelines Committee.

Distribution list / dissemination method

Trust intranet through the obstetrics & gynaecology department page

References

1. 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
2. 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
3. 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.
4. The National Sentinel Caesarean section Audit Report RCOG Clinical Effectiveness Support Unit October 2001 RCOG Press
5. NICE Clinical Guideline 132 Caesarean Section November 2011
6. NICE Clinical Guideline 62 Antenatal Care; Antenatal care for uncomplicated pregnancies March 2008
7. NICE Clinical Guideline 121 Intrapartum care for women with existing medical conditions or obstetric complications and their babies 2019

Birth Choices Counselling Clinical Care Pathway

Age: Parity: BMI:

TRA: PET Risk: GDM Risk:

Risk factors:

Previous delivery details:

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%.

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 and advise continuous monitoring in labour.

Recommend and advise birth on consultant delivery suite.

Recommend and advise IV access in labour.

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.

Would usually offer a membrane sweep with community midwife at 40 weeks.

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.

Elective Caesarean Section vs Induction of Labour. Mechanical induction of labour using balloon catheter to open 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?

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.

RCOG Green-top Guideline No. 45 October 2015