University Hospitals of North Midlands NHS
NHS Trust

Achieving Sustainable Quality in Maternity Services

ASQUAM

Guideline for Vaginal Birth after Caesarean Section (VBAC)

Date of Ratification:	May 2016
Date of Next Review:	May 2019
Ratified by:	Labour Ward Forum Sub-Group Obstetric Guideline Group
Author:	Miss R Indusekhar Consultant Obstetrician and Gynaecologist Mrs D Turner, Community Team Leader

VERSION CONTROL SCHEDULE

Version	Date	Author	Comments
1	1997	Mr R B Johanson Consultant Obstetrician	New guidance
2	1999	Mr R B Johanson Consultant Obstetrician	
3	2005	Sr L Dudley Mr P Young Consultant Obstetrician	
4	2009	Dr N Siraj SPR Obstetrics & Gynaecology	
5	2011 – June	Miss R Indusekhar Consultant Obstetrician/Guideline Lead Mrs D Turner Community Midwife Team Leader	In line with CNST standards issued January 2011
6	2011 – Dec	Miss R Indusekhar Mrs D Turner,	Section added: 4. Decision for trial of VBAC at UNHS. • Any issues discussed and evaluations concluded will help influence a individual management plan for the place of labour and intrapartum management. This plan must be clearly documented within the medical records. A patient information leaflet should be provided with the consultation (see appendix 1) **and it should be documented in the woman's health records that this has been given to her.**
7	2012	Miss R Indusekhar Mrs D Turner	**Changes include: addition to sentence shown in bold** **4. DECISION FOR TRIAL OF VBAC AT UHNS** **Document antenatal discussion and the mode of delivery** Any issues discussed and evaluations concluded will help influence a individual management plan for the place of labour and intrapartum management. This plan must be clearly documented within the medical records. A patient information leaflet should be provided with the consultation (see appendix 1) **which informs the woman that her baby will be continuously monitored during labour** and it should be documented in the woman's health records that this has been given to her. Appendix 1 – Patient information leaflet updated – first sentence has been made bold. A copy of the updated leaflet will be circulated after ratification and old versions taken out of circulation **What happens in a VBAC?** Labour after a previous caesarean section is managed like any other labour but your baby will be continuously monitored. We will take blood specimens so that we are able to cross-match blood quickly if problems arise.
8	2013 - July	Miss R Indusekhar Mrs D Turner	All of the above guideline have been updated with minor changes to the audit table in line with recommendations made by the CNST assessor in preparation for the Level 3 assessment in November 2013.
9	2013 - Oct	Miss R Indusekhar Mrs D Turner	Change made - additional sentence included **4. Decision For Trial of VBAC At UHNM** • Any issues discussed and evaluations concluded will help influence a individual management plan for the place of labour and intrapartum management. This plan must be clearly documented within the medical records.

			A patient information leaflet should be provided with the consultation (see Appendix 1) which informs the woman that her baby will be continuously monitored during labour. Documentation should indicate that either the patient information leaflet has been given or that the plan for fetal monitoring during labour has been discussed. Reviewed by pharmacist – syntocinon changed to read oxytocin.
10	2016	Dr J Chan Consultant Obstetrician/Guideline Lead	Patient information changed in line with VBAC clinic guideline.

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1. PURPOSE OF THE GUIDELINE

The purpose of the guideline is to provide up-to-date information for medical and midwifery staff to ensure the provision of consistent, high quality evidenced based care for women undergoing a trial of Vaginal Birth after Caesarean section (VBAC) at the University Hospital of North Staffordshire.

This guideline will address the following issues

a) Antenatal counselling for VBAC
b) The likelihood success and contraindication for VBAC
c) The risks and benefits of Caesarean section and Vaginal birth.
d) Intrapartum care during VBAC
e) External Cephalic Version after previous CS

2. BACKGROUND

Over the last 20 years, CS rates have risen worldwide. In many developed countries the overall CS rates range from between 15% and 25%. 56% of women attempt vaginal birth after one caesarean section, with 66.7% of them succeeding. In the UK, this means that only 33% of women who have had a previous caesarean section achieve a vaginal delivery.[2] In England and Wales 9% women giving birth have had a previous CS([1]).

3. CONTRAINDICATIONS FOR VBAC AT THE UHNM

- Previous classical section(200-900/10000)[9]
- Previous inverted 'T' or J incision(190/10000 rupture risk)[10]
- Previous hysterotomy or myomectomy entering the uterine cavity.
- Previous uterine rupture
- The presence of contraindication to labour
- The woman declines a trial of VBAC and requests a repeat CS.

4. DECISION FOR TRIAL OF VBAC AT UHNM

Document antenatal discussion and the mode of delivery

- Women with a prior history of one uncomplicated lower-segment transverse caesarean section, in an otherwise uncomplicated pregnancy at term, with no contraindication to vaginal birth, should be able to discuss the option of planned VBAC. This process should commence with the community midwife and a referral made to the antenatal clinic for further discussion with the consultant obstetrician.

- The patient and her Consultant Obstetrician must decide together, whether an appropriate situation exists for considering a trial of vaginal delivery

- Operative records from previous surgery should be reviewed to clarify the location and type of uterine incision used, liaison with other hospitals if necessary.

- Any issues discussed and evaluations concluded will help influence a individual **management plan for the place of labour and intrapartum management.** This plan must be clearly documented within the medical records. A patient information leaflet should be provided with the consultation (see Appendix 1) which informs the woman that her baby will be continuously monitored during labour. Documentation should indicate that either the patient information leaflet has been given or that the plan for fetal monitoring during labour has been discussed.

- A final decision for the mode of delivery should be decided at 34-36 weeks gestation after consultation with Consultant or Registrars. This decision must be documented in the patients health record.

- Women considering their options for birth after a single previous caesarean should be informed that, overall, the chances of successful planned VBAC are 72–76% (Evidence levels IIa, IIb, III).

- As up to 10% of women scheduled for ERCS go into labour before the 39th week, it is good practice to include in the Management Plan the arrangements in **the event of labour starting prior to the scheduled date** which must be clearly documented in the medical records. [3] (Evidence level 2a)

5. FACTORS ASSOCIATED WITH SUCCESSFUL VBAC

- Previous vaginal birth/ VBAC- 87-90% successful[4-6]
- Spontaneous labour
- Non recurring indication for previous caesarean section

5.1 Factors associated with unsuccessful VBAC

- induced labour,
- no previous vaginal birth,
- body mass index greater than 30[7-8]
- previous caesarean section for dystocia.21
- Other factors include
- VBAC at or after 41 weeks of gestation, } Evidence level 11a 11b
- birth weight greater than 4000 g; and 111
- no epidural anaesthesia,
- previous preterm caesarean birth,
- cervical dilatation at admission less than 4 cm,
- less than 2 years from previous caesarean birth,
- advanced maternal age,
- non-white ethnicity,
- short stature and
- a male infant

5.2 Benefits of successful VBAC

Potential reduction in the rates of febrile morbidity
Associated with less blood loss
Shorter hospital stay
Potential reduction of thromboembolic complications.

5.3 Risks associated with VBAC

Uterine rupture with spontaneous labour is a very rare complication, but is increased in woman having a planned trial of vaginal birth. 35/10,000 women compared with 12/10,000 having a planned repeat CS.[18] Evidence level 111

Uterine rupture with induction of labour is further increased to

80 /10000 when labour is induced by non prostaglandin agents

240/10,000 when labour is induced using prostaglandins[28]
(Evidence level 111) Prostaglandin induce labour by dissolving collagen network at the unripe cervix, they may also dissolve any collagen scar tissue at the site of a previous section.

To avoid 1 symptomatic uterine rupture 370 elective caesarean sections need to be performed.

Women considering planned VBAC should be informed that this decision carries a 2–3/10,000 additional risk of birth-related perinatal death when compared with ERCS. The absolute risk of such birth-related perinatal loss is comparable to the risk for women having their first birth.[10]

Planned VBAC carries around 1% additional risk of blood transfusion or endometritis.[11]

Planned VBAC carries 8/10,000 risk of the infant developing hypoxic ischaemic encephalopathy.[11]

Carries a 2–3/10,000 additional risk of birth-related perinatal death when compared with ERCS.[11]

The risk of an intrapartum fetal death is increased in woman having a planned Vaginal birth (about 10 per 10,000) compared to planned repeat CS (ABOUT 1 **PER 10,000)**

Uterine rupture is associated with an increase in fetal complications, including arterial cord pH of less than 7.0 (33%), hypoxic ischemic encephalopathy (6.2%) and neonatal death (1.8%).[11]

In cases of uterine rupture, neonates appear to do best in the following situations:

- when delivery is achieved within 18 minutes of the onset of prolonged fetal heart decelerations.[27]

- The rate of maternal deaths related to uterine rupture alone is 0.02:1 000[29]

6. RISKS OF CAESAREAN SECTION

- Risk of damage to bladder and bowel at the time of surgery.[12] VBAC
- Haemorrhage and the need for blood transfusion
- Placenta praevia and placenta accrete in subsequent pregnancies[13]
- Hysterectomy[14]
- Ectopic pregnancy[15]
- The risk of respiratory problem in the newborn can potentially be increased.[16,17]

An emergency caesarean section following trial of VBAC is associated with great risks of operative injury and febrile morbidity[14] (evidence level 111)

6.1 Benefits of C/S

- Overall risk of perinatal mortality and morbidity is reduced.

Elective LSCS should be planned at 39 weeks gestation to reduce the risk of respiratory morbidity of the newborn.[19]

7. PLANNED VBAC IN SPECIAL CIRCUMSTANCES

- Women who are preterm and considering the options for vaginal birth after a previous section should be informed that planned preterm VBAC has similar success rates to planned term VBAC but with a lower risk of uterine rupture.[20]
- A cautious approach is advised when considering planned VBAC in women with twin gestation, big baby, and short inter delivery interval.[21,22,23]

In VBAC of twins there is a three to five-fold increase in scar dehiscence but no difference in major morbidity and mortality and over 70% of women will deliver vaginally.[24]

A short inter delivery interval of less than 12 months has been reported to be associated with a five-fold increase in uterine rupture,[25]

Trial VBAC after more than one previous caesarean section is not offered in UHNM. A retrospective review of 1827 women undergoing VBAC after two or more previous C/S reported a uterine rupture of 1.7%.

External cephalic version in women with previous caesarean section can be done in selected cases.

8. INTRAPARTUM CARE

When and how should VBAC be conducted?

Woman should be advised that planned VBAC should be conducted in a suitably staffed and equipped delivery suite, with continuous intrapartum care and monitoring. There should be resources available for immediate caesarean section and advanced neonatal resuscitation. (Evidence level 11 a, 11b. and 111)

Epidural anaesthetic is not contraindicated in planned VBAC evidence level (1V)

A documented plan for monitoring of the fetal heart during labour is essential.

The plan will include the type of monitoring to be used but in most cases this will be continuous monitoring of the fetal heart which should be documented on the partogram

The presence of any of the following may raise the concern of uterine rupture.

- Abnormal CTG
- Severe abdominal pain, especially if persisting between contractions
- Chest pain or shoulder tip pain, sudden onset of shortness of breath
- Acute onset scar tenderness
- Abnormal vaginal bleeding or haematuria
- Cessation of previously efficient uterine activity
- Maternal tachycardia, hypotension or shock
- Loss of station of the presenting part.

The diagnosis is ultimately confirmed at emergency caesarean section or postpartum.

Meticulous partographic documentation of labour progress in a VBAC is mandatory since, 1 hour after crossing the 'alert line' with cervical dilatation of less than 1 cm/hour, the risk of uterine rupture increases by a factor of 10.[26]

8.1 Methods of IOL for women having a trial of VBAC

Induction of labour should be preferably for obstetric indication only.

- Prostin gel 1mg/Propess 10mg, if cervix unfavourable for ARM. Both propess and prostin are unlicensed preparations for use in previous CS. There is no current evidence to suggest that one preparation is better or safer than the other. Therefore:

    1. Induction of labour for previous CS should be a consultant decision

    2. The consultant can decide which preparation to use.

    3. The risks should be explained to patient and documented in the notes.

Artificial rupture of membranes, if favourable. Await onset of contractions. If no contraction after agreed time limit, consider augmentation with oxytocin.

Should the woman wish to have a trial of VBAC with spontaneous onset of labour, thereby avoiding IOL this should be discussed as one of her options with the lead Consultant

There must be a documented plan for labour should labour not commence as planned which may include booking of an elective repeat C/S at 42 weeks gestation, if spontaneous labour has not occurred prior to the given date.

VBAC failure, resulting in emergency caesarean section and, rarely, in uterine rupture, can be minimised with appropriate patient selection, good antenatal counselling, careful review of the case notes and adherence to written guidelines

8.2 Oxytocin regime

Refer to ASQUAM Guideline "Oxytocin Use in Labour" (current version on intranet).

9. MULTIDISCIPLINARY MONITORING AND AUDIT

The need to monitor/audit the standards set out below will be considered alongside other Directorate requirements and prioritised accordingly. The Directorate Clinical Audit programme is drafted by the Directorate Clinical auditor, in liaison with clinical staff, and approved by the Directorate.

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements	Acting on recommendations and lead(s)	Change in practice and lessons to be shared
Guideline content	Guideline Co-ordinator	Guideline Review	Every three years	Labour Ward Forum Subgroup: Guideline Meeting	Required changes to practice will be identified and actioned with the release of the updated guideline.	Required changes to practice will be identified and actioned with the release of the updated guideline.
Clinical standards within guideline	Directorate Clinical Auditor	Clinical Audit	As required in relation to other Directorate priorities	Directorate Business, Performance and Clinical Governance Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan.	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.

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Appendix 1

University Hospitals of North Midlands NHS NHS Trust	**Patient Details**
Patient Information Leaflet **Giving birth vaginally after a previous Caesarean section (VBAC)**	

The aim of this information leaflet is to help you to understand the risks and benefits of having a Vaginal Birth after having had a previous Caesarean Section and to answer any questions you may have.

Making a Choice…….. There is no right or wrong choice.

What is VBAC?

VBAC is an abbreviation of Vaginal Birth After Caesarean.

The term Vaginal Birth will also include having an assisted vaginal delivery, including Ventouse suction or a Forceps delivery.

60-70% of women will achieve a Vaginal Delivery following a previous Caesarean Section.

What are the benefits of VBAC?

- Women who achieve a Vaginal Birth after a previous Caesarean Section may have a more positive birth experience.
- It allows women the opportunity to have a more natural approach to Labour and Birth.
- Avoidance of surgery, allowing a more speedy return to everyday activities.
- Reduced complications by avoidance of surgery, leading to less chance of infection, thrombosis (Blood Clots) and Blood Transfusion.
- Babies born vaginally have a reduced risk of breathing problems compared to babies born by Caesarean Section.

What are the Risks of VBAC?

- There is a small risk of scar complications. The scar from your previous Caesarean may begin to rupture during labour and an Emergency Caesarean Section would be required.
- The risk of scar/Uterine rupture is 0.5%. However, having an Induction of Labour, when you have had a previous Caesarean Section may increase the risk of Uterine rupture three-fold.
- Scar rupture may increase the risk of a Hysterectomy following birth. This happens to 3 in 10,000 women who attempt VBAC (0.03%

What choices do you have?

VBAC is a very realistic choice for most women, but some will have a valid reason for choosing a planned Caesarean Section.

There is a 72-76% chance of achieving a successful VBAC.

Increasing to 87-90% for women who have had previous VBAC and/or any woman who has had a previous normal delivery

You may have an invitation to attend the Midwife-Led birth options clinic if you have had a single previous Caesarean Section, where a Midwife will discuss your previous delivery and Birth choices for your current pregnancy**.**

Alternatively, some women will have an appointment with an Obstetrician to discuss Birth Options.

Points to Consider:

- The reason why you had a previous Caesarean Section
- How many babies are you planning to have?

Place of Delivery:

If you decide to opt for VBAC Delivery, it is advisable to have a Hospital birth on the Consultant-Led Delivery Suite with appropriate facilities if complications arise in relation to the labour and delivery.

Your care will be given by a Midwife during the Labour and Birth.

However, if you wish to explore the option of a Home Birth or delivery on the Midwife Birth Centre, you can discuss this with the Obstetrician and Midwife.

Monitoring:

For women agreeable to VBAC, it is advisable that the Baby's Heart Rate is monitored continuously throughout labour.

If you wish to be mobile in labour, or to use hydrotherapy during the first stage of labour, we have access to Telemetry (Mobile Continuous Monitoring

Communication:

You will be asked to confirm that you understand the purpose and outcome of the consultation and a management plan will be documented in your Hand Held Pregnancy Notes regarding your birth choices, including a care plan in case you do not labour spontaneously.

Interpreters will be used, as per Trust Policy, for all women for whom English is not their first language. Please let staff know if you need an interpreter.

Further Information:

If you have any questions or concerns regarding your pregnancy, or for any further information, please contact your G.P. or Community Midwife.

The Patient Advice and Liaison Service (PALS) offer a confidential advice and support service if you have any concerns.

PALS can be contacted on: 01782 676450 or email: patient.advice@uhnm.nhs.uk