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Vaginal Birth After Caesarean Section and Care of Women with Previous Uterine surgery

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To be read in conjunction with the following documents:
Milton Keynes University Hospital NHS Foundation Trust. *Antenatal Care Pathway.* MIDW/GL/137. Version 8, 2016.
Milton Keynes University Hospital NHS Foundation Trust. *Fetal monitoring.* MIDW/GL/48. Version 6, 2018.
Milton Keynes University Hospital NHS Foundation Trust. *Guideline for the use of water during labour and birth*. MIDW/GL/3. Version 6, 2018.
Milton Keynes University Hospital NHS Foundation Trust. *Induction of labour.* MIDW/GL/11. Version 6.1, 2018.
Milton Keynes University Hospital NHS Foundation Trust. *Intrapartum care.* MIDW/GL/183. Version 1, 2019.
Milton Keynes University Hospital NHS Foundation Trust. *Pre labour rupture of membranes at term and prevention of early onset neonatal Group B streptococcal infection.* MIDW/GL/138. Version 3, 2015.

CQC Fundamental standards:
Regulation 9 – person centred care
Regulation 10 – dignity and respect
Regulation 11 – Need for consent
Regulation 12 – Safe care and treatment
Regulation 13 – Safeguarding service users from abuse and improper treatment
Regulation 17 – Good governance
Regulation 19 – Fit and proper

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Disclaimer

Since every patient's history is different, and even the most exhaustive sources of information cannot cover every possible eventuality, you should be aware that all information is provided in this document on the basis that the healthcare professionals responsible for patient care will retain full and sole responsibility for decisions relating to patient care; the document is intended to supplement, not substitute for, the expertise and judgment of physicians, pharmacists or other healthcare professionals and should not be taken as an indication of suitability of a particular treatment for a particular individual.
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Guideline Statement

Background

"There has been continued debate about defining an acceptable caesarean delivery rate and what rate achieves optimal maternal and infant outcomes. The overall caesarean delivery rate in England for 2012/2013 was 25.5%. The majority were emergency (14.8%) compared to elective (10.7%) caesarean births (RCOG, 2015, p.4).

The rising and high levels of caesarean section rates are nevertheless a concern and has led to an increasing number of women booking with maternity services with a history of a previous caesarean section. Therefore, counselling women for and managing birth after caesarean delivery are important issues.

There is a consensus (National Institute for Health and Care Excellence (NICE), Royal College of Obstetricians and Gynaecologists (RCOG), American College of Obstetricians and Gynaecologists (ACOG) and National Institutes of Health (NIH) that planned Vaginal Birth After Caesarean (VBAC) is a clinically safe choice for the majority of women with a single previous lower segment caesarean delivery" (RCOG, 2015, p.5).

This guideline is largely concerned with the care of women who have had previous lower segment Caesarean section (LSCS) and is also aimed to support staff in providing care for women who could be considered for a vaginal birth after a previous uncomplicated Caesarean section (CS). Such women booking at the Milton Keynes University Hospital should have an opportunity to attend the(Birth Choice Clinic.) Those who have had classical caesarean section or other procedures i.e myomectomy with breach of uterine cavity are contraindication for VBAC.
A patient information leaflet accompanies this document which is the RCOG 2016 patient information leaflet *Birth options after previous Caesarean* section (see references section for full details), the information contained within these documents is reflected within this guideline

The decision regarding mode of birth after a previous caesarean should take into consideration the following:

- Maternal preferences and priorities
- A general discussion of the overall risks and benefits of (VBAC) and Elective Repeat Caesarean Section (ERCS)
- Risk of uterine rupture
- Risk of perinatal mortality and morbidity

Pregnant women who have a previous Caesarean and who want to have a VBAC should be supported in this decision provided there is no contraindication for vaginal birth.

Executive Summary

The guideline on the management of pregnancy following uterine surgery has been merged with the guideline on vaginal birth after Caesarean section.

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This guideline aims to advise staff in providing care and evidence-based information to inform the antepartum and intrapartum care pathways for women who have had a previous caesarean section. It also provides guidance and information pertaining to VBAC counselling within the Birth VBAC clinic.

It also includes guidance on management of women with previous two or more a Caesarean sections and care after other uterine surgery.

Definitions

- ERCS- Elective Repeat Caesarean Section
- LSCS - Lower Segment Caesarean Section
- RCOG – Royal College of Obstetricians and Gynaecologists
- Successful VBAC- Vaginal birth, spontaneously or assisted in a woman having previously experienced a caesarean section.
- Uterine Dehiscence- Disruption of the uterine muscle with an intact uterine serosa.
- Uterine Rupture- Disruption of the uterine muscle extending to and involving the uterine serosa or disruption of the uterine muscle with or without extension to the bladder or broad ligament.
- VBAC - Vaginal Birth after Caesarean. A planned VBAC is the description used where a woman intends a vaginal birth and undergoes labour with a scar on her uterus as a result of either previous caesarean section.

1.0 Roles and Responsibilities:

Community Midwives have a responsibility for identifying antenatal women who have had a previous caesarean and for giving women information at booking about the option for vaginal birth after caesarean (VBAC). Community Midwives should provide women with the RCOG 'Birth options after a previous caesarean section' leaflet. Community Midwives are also responsible for providing individualised and personalised care.

Midwives have a responsibility to support women and promote the choice of VBAC. They also have a responsibility in assessing, planning, implementing and evaluating the care they provide.

All grades of Doctors have a responsibility in promoting and supporting women in their choice of VBAC and planning individualised care that reflects those choices.

Consultant Obstetricians have a responsibility for planning care involving induction of labour for women opting for VBAC.

Midwives, Nurses and Maternity Health Care Assistants are responsible for the delivery of the process.

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All maternity services staff providing care have a responsibility to document all aspects of care including discussions, plans, changes to plans and outcomes.

Identified lead midwives responsible for providing VBAC clinic, monitoring attendance and evaluating service provision.

2.0 Implementation and dissemination of document

This guideline will be available to all staff via the Trust's intranet.

3.0 Vaginal Birth after Caesarean (VBAC)

Women suitable for VBAC-

- Singleton pregnancy
- One previous lower segment caesarean section .
- If there is a history of two or more Caesarean sections, then this should be reviewed by the consultant.
- No absolute contraindications for a vaginal birth present in the current pregnancy.

Contraindications for a planned VBAC-

- "Based on limited observational data,[31,32] there is insufficient evidence to support the safety of VBAC in women with previous inverted T or J incisions, low vertical uterine incisions or significant inadvertent uterine extension at the time of primary caesarean; hence caution should be exercised in these women and decisions should be made by a senior obstetrician on a case-by-case basis.
- VBAC is contraindicated in women with previous classical caesarean delivery due to the high risk of uterine rupture.[33]" (RCOG, 2015, p.6)
- Previous Uterine Rupture
- Three or more previous caesarean sections.
- Two caesarean sections not in spontaneous labor.
- Any absolute contraindications that apply to vaginal delivery regardless of presence of uterine scar i.e. placenta praevia
- In women with complicated uterine scars, caution should be exercised, and decisions should be made on a case-by-case basis by a Consultant Obstetrician with access to the details of previous surgery
- Malpresentations (e.g. Transverse or oblique lie)

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3.0.1 Provision of Information

The risks and benefits should be discussed in the context of the woman's individual circumstances, including her personal motivation and preferences to achieve vaginal birth or ERCS, her attitudes towards the risk of rare but serious adverse outcomes, her plans for future pregnancies and her chance of a successful VBAC. In addition, where possible, there should be review of the operative notes of the previous caesarean to identify the indication, type of uterine incision and any perioperative complications.

All women presenting for counselling at the VBAC Clinic should receive a documented discussion which includes the following information:

- Her previous caesarean birth experience.
- The risks and benefits of ERCS and planned VBAC for the mother and fetus, including the risks or repeat caesarean sections in future pregnancies with planned caesarean section.
- The chances of successful planned VBAC. (72-75% - RCOG, 2015, p. 3)
- The risk of uterine rupture in labour. (1 in 200 / 0.5% - RCOG, 2015,p. 3)
- The implications for labour of having a scar on the uterus including recommendations for place of birth and the need for close fetal monitoring and observation in labour.
- What to do if the woman labours early.
- The plan for postdates pregnancy which will involve a Consultant Obstetrician.
- The overall plan for labour and birth for the current pregnancy.
- The risk of an intrapartum infant death is small for women who have planned VBAC (about 4 per 10,000 / 0.04%); however, this is higher than for planned repeat caesarean section (about 1 per 10,000 / 0.01%). The prospective risk of antepartum stillbirth beyond 39 weeks for women who have planned VBAC is 10 per 10,000 / 0.1%. (RCOG, 2015, p.10-11)
- Neonatal risks (these issues are covered in detail in the patient information leaflet) It may be helpful to emphasise to women that the absolute risks of birth-related perinatal death associated with VBAC are comparable to the risks for nulliparous women in labour. (RCOG, 2015, p.9)
- Women considering the options for birth after a previous caesarean should be informed that planned VBAC carries an 8 in 10,000 / 0.08% risk of the infant developing hypoxic ischaemic encephalopathy. (RCOG, 2015, p.11) The effect on the long-term outcome of the infant upon experiencing HIE is unknown.
- The effect of planned VBAC or planned repeat caesarean section on cerebral palsy is uncertain.

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- Women considering the options for birth after a previous caesarean should be informed that attempting VBAC probably reduces the risk that their baby will have respiratory problems after birth: rates are 2–3% with planned VBAC and 4–5% with ERCS. (RCOG, 2015, p.10)

- Women with an unplanned labour and previous Caesarean section, should be seen by Obstetrician for discussion on suitability of vaginal birth

- Women should be counseled regarding the risk of uterine rupture and maternal morbidity, and the individual likelihood of successful VBAC (e.g. given a history of prior vaginal delivery). Labour should be conducted in a center with suitable expertise and recourse to immediate surgical delivery.

This discussion should be supplemented and evidenced by completing a copy of the 'VBAC proforma and care plan', (see appendix 2) appended to the notes and documented in eCare

The discussion should be supported by the RCOG 2016 'Birth Options after previous caesarean section' (VBAC leaflet) and given to the woman if not already given

Women with previous two or more lower segment caesarean deliveries-

- Should be seen by the Consultant Obstetrician following their anomaly scan and before 24 weeks gestation
- Community Midwives should provide women with the RCOG 'Birth options after a previous caesarean section' leaflet.
- If woman is considering VBAC outside of guidance, refer Consultant Obstetrician at any gestation
- Discuss the risk of uterine rupture and increased maternal morbidity
- **Refer to Appendix 1 for management**
- <u>Two caesarean sections not in spontaneous labor is a relative contra-indication for VBAC</u>

3.0.2 VBAC Success

The chances of a successful VBAC following a single uncomplicated caesarean section having never experienced a vaginal delivery is 72-75%.

The chances of a successful VBAC following a single uncomplicated caesarean section having had at least one vaginal delivery is 85-90%. (RCOG, 2015, p.12)

Factors which reduce the likelihood of a successful VBAC are:

- Induced labour

- No previous vaginal delivery

- BMI >30

- Previous caesarean section for labour dystocia (64% or 73% for fetal distress. RCOG, 2015, p.13)

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Factors which increase the likelihood of a successful VBAC are:

- Greater maternal height
- Maternal age <40
- BMI <30
- Gestation <40weeks and infant birthweight <4kg (or similar/lower birthweight to/than previous caesarean delivery)
- Spontaneous onset of labour
- Fetal head engagement or a lower station
- High admission bishop score
- One or more previous vaginal deliveries
- Prior caesarean section for fetal malpresentation (84%) (RCOG, 2015, p.13)

3.0.3 Scar Rupture

The main risk associated with a planned VBAC is scar dehiscence and rupture. Uterine rupture, although associated with significant maternal and fetal mortality and morbidity, is a rare occurrence even amongst VBACs. The risk of uterine rupture increases with:

- Number of previous caesarean sections
- A short interval between caesarean sections (less than one year)
- Induction / augmentation of labour

The Royal College of Obstetricians and Gynecologists green-top guideline (2015) for Birth after Previous Caesarean Section identify the following rates:

Risks associated with uterine rupture	Rate per 10,000	%
Rupture with no previous caesarean section (RCOG, 2015, p.14)	2 per 10,000	0.02%
VBAC with one previous caesarean section (RCOG, 2015, p.10)	5 per 1,000	0.5%
VBAC with two previous caesarean section (RCOG, 2015, p.7)	92 per 10,000	0.92%
VBAC induction with Prostaglandins (RCOG, 2015, p.15)	87 per 10,000	0.87%

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VBAC induction amniotomy/cervical catheter alone (RCOG, 2015, p.15)	29 per 10,000	0.29%
VBAC augmentation with Oxytocin (RCOG, 2015, p.29)	87 per 10,000	0.87%
ERCS (RCOG, 2015, p.14)	2 per 10,000	0.02%

3.0.4 Place of Birth

The Royal College of Obstetricians & Gynaecologists (RCOG, 2017) Birth After Previous Caesarean Birth Green-top Guideline No. 45 recommends:

- "Women should be advised that planned VBAC should be conducted in a suitably staffed and equipped delivery suite with continuous intrapartum care and monitoring with resources available for immediate caesarean delivery and advanced neonatal resuscitation" (RCOG, 2015, p.3).
- Continuous cardiotocography (CTG) is recommended in established labour with the onset of regular uterine contractions. An abnormal CTG is the most consistent finding in uterine rupture and is present in 66-76% of events (RCOG, 2015, p.14).

3.0.5 Use of the Birth Pool

If a woman requests the use of the birth pool for labour and/or birth she should be informed of the risks (including a possible delay in identifying and responding to scar rupture) and the recommendation for continuous electronic fetal monitoring.

This should be discussed with Obstetric Registrar, who should have a discussion regarding the risk of uterine scar rupture and and the Consultant on-call should be informed.

3.1 Antenatal Care Pathway (Refer to appendix 1)

3.1.1 Booking and Initial Planning of Care

All women who have had a previous caesarean section should have this documented clearly in their electronic maternity notes at booking and on the antenatal booking risk assessment. This will then be triaged by Antenatal Clinic (ANC) and they will then be assigned for Consultant Led Care (CLC).

At booking, pregnant women with both previous caesarean section and a previous vaginal birth should be informed by the Community Midwife that they have an increased likelihood of

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a vaginal birth (85-90%) than women who have had a previous caesarean section (72-75%) but no previous vaginal birth. (RCOG, 2015, p.12)

The RCOG 'Birth options after previous caesarean section' patient information leaflet should be given to the woman and discussed if required to inform her choices and this be clearly documented.

Women who have a contraindication for planned VBAC must be referred to a Consultant Obstetrician for discussion.

Women who are requesting birth choices outside of MKUH guidelines must be referred to the Consultant Midwife and the Consultant Obstetrician as appropriate.

3.1.2 Birth Choice Clinic

The VBAC Clinic takes place in antenatal clinic and is facilitated by the antenatal clinic midwives. A discussion of the previous delivery events should be undertaken. A documented record of the antenatal discussion must be recorded on the 'VBAC Proforma and Care Plan' **(see Appendix 2)** and attached to the woman's antenatal notes. This will also need to be recorded on eCare following a full discussion of risks and benefits of VBAC versus ERCS. (RCOG, 2015, pp.8-9)

The appointment is for consultation about next birth only. Each consultation lasts approximately 30-45 minutes although longer appointments may be accommodated for more complex cases.

Women who fit the referral criteria will have been identified by their Community Midwife and the aim is for all women identified as candidates for VBAC to be seen for initial consultation by Consultant by 23 weeks.

Women requesting VBAC can be further supported by the Community Midwife and referred to the VBAC Clinic if required.

Some women will not make a decision regarding VBAC until 34-36 weeks gestation. However, where possible the plan for delivery should be confirmed by 36 weeks and recorded on the VBAC proforma and within the eCare record. If the woman has no preference for VBAC or ERCS following initial discussion, a further review should be offered at 34-36 weeks to establish preference and ensure suitability for VBAC.

All women with a history of TWO or more previous caesarean sections and women with a history of one caesarean section and additional risk factors must be seen by an Obstetrician following anomaly scan and before 24 weeks gestation.

Clinicians should be aware that there is uncertainty about the safety and efficacy of planned VBAC in pregnancies complicated by-
Post-dates, twin gestation, fetal macrosomia, antepartum stillbirth or maternal age of 40 years or more.
Hence, a cautious approach is advised if VBAC is being considered in such circumstances.

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Women who are preterm and considering the options for birth after a previous caesarean delivery should be informed that planned preterm VBAC has similar success rates to planned term VBAC but with a lower risk of uterine rupture

Previous vaginal delivery is also independently associated with a reduced risk of uterine rupture.

3.1.3 Obstetrician Led Assessment-

A final decision for mode of birth should be agreed by 36 weeks of gestation. An assessment should be undertaken for women who are requesting ERCS, women who are undecided on mode of delivery or women who have complicating medical or obstetric factors.

There should be a documented plan for spontaneous labour. Should labour occur prior to 37 weeks gestation the plan of care should be reviewed and revised as necessary following admission.

Women who have a planned VBAC should be offered:

- Care during labour in a unit where there is immediate access to ERCS and on-site blood transfusion services
- Registrar/consultant on-call should be informed .
- Supportive one-to-one care
- Intravenous access with full blood count and blood group and save
- Continuous electronic fetal monitoring
- Regular monitoring of maternal symptoms and signs
- Regular (no less than 4-hourly) cervical assessment to determine progress in labour

Women with a booked ERCS where the indication is for previous CS alone, who have no obstetric or medical risk factors and are subsequently admitted in labour, should be offered the opportunity to review the decision for ERCS and encouraged to pursue VBAC if they wish. Up to 10% of women scheduled for ERCS will labour spontaneously before 39 weeks. (RCOG, 2015, p.9)

3.1.4 > 41 Weeks Senior Obstetrician Led Assessment

- In the event that a woman planning VBAC reaches 41 weeks, she should be reviewed by a Consultant to consider the options of continuing to await spontaneous onset of labour, induction of labour or ERCS.
- A conversation including the details and risks and benefits of induction of labour must be discussed and documented. Options may include membrane sweeping at 40 and 41 weeks, balloon induction, amniotomy, ERCS or expectant management. (RCOG, 2015, pp.15-16)

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- Balloon induction is offered at MKUH .Balloon is inserted by registrar /consultant on labour ward and assessment is done after 24 hours with a view for amniotomy.

- If amniotomy is not possible after balloon removal ERCS will be offered

- Women should be informed that induction of labour using mechanical methods (amniotomy or Foley catheter) is associated with a lower risk of scar rupture compared with induction using prostaglandins.

3.2 Induction and Augmentation of labour

3.2.1 Induction of Labour (IOL) with VBAC

1. Women should be offered a cervical sweep from 40 weeks gestation if VBAC is planned and labour has not occurred, this may be repeated, every 2-3 days

2. IOL should be discussed with all women planning VBAC by 36 weeks gestation initially by a midwife and followed up by an Obstetrician at 41 weeks. Women who are planning a VBAC may be offered induction of labour at 40+12. The management should be clearly documented on eCare

3. Women should be informed of the 2-3-fold increased risk of uterine rupture with induction of labour compared with spontaneous labour (87/10,000 if Prostaglandins are used and 29/10,000 if non-Prostaglandins are used) and 1.5-fold increased risk of CS in induced or augmented labours compared to spontaneous labours (RCOG, 2015, p.15)

4. Prostaglandin are not offered for induction of labour at MKUH.

5. Balloon induction is offered at MKUH .

6. If the woman wishes to proceed with post-term IOL, she should be referred to a consultant obstetrician by 41 weeks who should discuss a plan for Induction, Elective LSCS or wait for spontaneous labour as detailed in the pathway. The decision to induce labour, proposed method, augmentation with Syntocinon, time intervals between serial VEs and the selected parameters of progress that would lead to a recommendation for caesarean section and discontinuation of VBAC should also be discussed (RCOG, 2015, p.15)

7. If the woman presents with pre-labour rupture of membranes (PROM) they should follow the MKUH PROM guidelines but commence Syntocinon as the preferred method of augmentation in preference to Prostaglandin

8. During induction of labour, women who have had a previous CS should be monitored closely, with access to continuous electronic fetal monitoring and with immediate access to caesarean section, because they are at increased risk of uterine rupture

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3.2.2 Use of Oxytocin

- Oxytocin is associated with an increased risk of scar rupture (four-fold or greater) (RCOG, 2015, p.15). A 1.1% risk of uterine rupture was found by one meta-analysis for women who are augmented in VBAC labour (RCOG, 2015, p.29)
- Agreement for use of Syntocinon should always be discussed with the Consultant on cal
- For multiparous women and previous one caesarean section extreme caution is exercised. Keeping oxytocin at minimum to achieve 3-4 contractions per ten minutes
- Vaginal examinations should be undertaken no less than than 4 hourly in established labour to ensure there is adequate progress of cervical dilatation (RCOG, 2015, p.14)
- The selected parameters of progress that would necessitate discontinuing VBAC labour should be consultant-led decisions
- If Syntocinon is commenced continuous electronic monitoring must be in place either by the abdominal route or by fetal scalp electrode (FSE)
- For para1, 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
- Ensure the uterus returns to normal resting tone between contractions

3.2.3 Uterine Hyperstimulation

This is defined as a period of more than 5 contractions in a ten-minute period occurring for a period of at least 20 minutes or a contraction lasting at least 2 minutes with fetal heart rate changes (NICE CG70, 2008, p.xvi). If this occurs discontinue the oxytocin and inform Registrar or Consultant Obstetrician. Consideration may be given to lower oxytocin dose, stop oxytocin or administering subcutaneous Terbutaline 0.25milligram

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3.3 Intrapartum VBAC Management

All women booked for VBAC contracting with regular uterine contractions should be invited into Labour Ward for assessment. The Obstetrician on call should be made aware of all women on admission with a history of previous caesarean section and a full review and a plan of care documented

- Continuous cardiotocography (CTG) is recommended in established labour with the onset of regular uterine contractions. An abnormal CTG is the most consistent finding in uterine rupture and is present in 66-76% of events (RCOG, 2015, p.14). If a woman requests intermittent auscultation of the fetal heart it should be undertaken as per the MKUH fetal monitoring guideline, and the discussion of the risks and the woman's decision documented in the maternity notes. The coordinating midwife and Obstetric Registrar & Consultant should be informed of the woman's choice.

- Routine amniotomy in women in labour with previous caesarean section **should not be offered** (NICE NG121, 2019)

- Administer Omeprazole 20mg orally 12 hourly or 40mg orally once daily

- Women should be encouraged to mobilise and remain in upright positions during labour. Encouraged women to use the birthing pool if desired with fetal heart monitoring using telemetry, if they so wish

- Epidural is not contraindicated in VBAC. However, women should be informed that it may increase delay in 2nd stage and instrumental birth.

  An increased need for pain relief in labour or breakthrough pain with an epidural should raise awareness of the possibility of impending scar rupture

- Vaginal examinations should be undertaken no less than 4 hourly in established labour to ensure there is adequate progress of cervical dilatation (RCOG, 2015, p.14)

- If augmentation of labour is required in spontaneous labour, a senior obstetrician should discuss the following with the woman: the decision to augment labour with oxytocin, the time intervals for serial vaginal examination and the selected parameters of progress that would necessitate discontinuing VBAC (RCOG, 2015, p.15). Adequate progress should be made within **8 hours** of established labour (4cms) or from commencement of Syntocinon

- A repeat caesarean should be considered in the presence of CTG abnormalities. In cases where fetal blood sampling is being considered, this must be discussed with the Consultant Obstetrician prior to the procedure.

- In the second stage of labour it is appropriate to allow a passive hour for descent and up to one hour of active pushing. The Obstetric Registrar should be informed if birth has not occurred following one hour of active pushing and assess suitability for vaginal delivery or Caesarean section

- Women who achieve full dilatation but have a malpresentation (e.g. OP position) should not undergo a potentially difficult mid cavity instrumental birth

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3.4 Signs of Scar Dehiscence or Uterine Rupture

There is no single clinical feature that is indicative of uterine rupture and the presence of any of the following should raise concern of the possibility of scar rupture. The Registrar must be called immediately for urgent review.

- Suspicious or abnormal CTG – occurs in 66-76% of cases (RCOG, 2015, p.14)
- Sudden severe abdominal pain, especially if persisting between contractions
- Acute onset scar tenderness
- Abnormal vaginal bleeding
- Haematuria
- Cessation of previously efficient uterine contractions
- Chest pain or shoulder tip pain, sudden onset of shortness of breath
- Maternal tachycardia, hypotension, fainting or shock
- Loss of station of the presenting part
- Change in abdominal contour and inability to pick up fetal heart
- Maternal collapse.

3.5 Management of uterine rupture/scar dehiscence – Follow ALL steps below:

1. This is an obstetric emergency – Pull the emergency bell.
2. Dial 2222 stating ''Obstetric Emergency"
3. Insert a large bore intravenous grey venflon (16g). Take blood for full blood count and cross match 4 units of blood (if not already done)
4. Commence plasma substitute infusion eg Gelofusin
5. **STOP** oxytocin (Syntocinon) infusion if in use
6. Prepare for delivery by Category 1 Caesarean Section
7. Obtain verbal consent
8. Inform Anaesthetist on-call
9. Monitor pulse/ BP/ respiration every 15 minutes till transfer
10. Administer facial oxygen via mask

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11. Insert a Foleys catheter to monitor urine output

12. Keep patient and birth partner updated of situation.

13. 4 units of blood must be cross matched

14. Transfer patient immediately to theatre. Should it occur on the ward contact Labour Ward to inform them that a woman is being transferred to theatre.

15. Once mother is stable, monitor fetal condition

16. It is the responsibility of the Obstetric Registrar/labour ward coordinator to inform the Consultant on-call that the woman has been transferred to theatre

17. SCBU should be informed

18. Paired cord blood samples should be obtained at delivery

Women with evidence of suspected uterine rupture should be delivered immediately by emergency caesarean within 30 minutes, but within 15 minutes whenever possible (NICE CG132, 2011).

Elective repeat caesarean section

- ERCS delivery should be conducted after 39+0 weeks of gestation.

Antibiotics should be administered before making the skin incision in women undergoing ERCS. [New 2015]

- All women undergoing ERCS should receive thromboprophylaxis according to existing RCOG guidelines. [New 2015]
- Early recognition of placenta praevia, adopting a multidisciplinary approach and informed consent are important considerations in the management of women with placenta praevia and previous caesarean delivery. [New 2015]

4.0 Care of Women with Previous Uterine Surgery-

1. All pregnant women with previous uterine surgery must be seen by Consultant Obstetrician in Antenatal Clinic, before 24weeks gestation and previous surgical notes reviewed.

This group includes:

- Previous repair of ruptured uterus
- Previous classical caesarean section
- Previous inverted T incision
- Previous extensive myomectomy or any fibroid removal, where the uterine cavity was opened

- Previous J incision is a relative indication and when present, the decision to do a caesarean section or not should be a Consultant decision
- Previous reconstructive uterine surgery for uterine anomalies(e.g.) repair of uterus didelphys
- Previous operation notes recommend Elective Caesarean Section

2. Elective Caesarean Section is indicated and should be offered in these women, unless option of vaginal birth is agreed and documented by Consultant in ecare. There should be an individualized birth plan, taking the woman's wishes into consideration and after detailed counseling of the risks of uterine rupture and increased maternal and perinatal morbidity.
3. If uterine surgery has been performed outside Milton Keynes University Hospital, efforts should be made to obtain details of the surgery from the other hospital.
4. If there has already been a successful vaginal birth following the uterine surgery, Consultant referral for assessment and decision should still take place, but in the absence of an obstetric contra-indication the expectation would be for a further vaginal birth, after taking the woman's wishes into consideration

Statement of evidence/references

Fitzpatrick, K.E., et al. (2012) Uterine rupture by intended mode of delivery in the UK: a national case-control study. *PLoS Medicine* [Online] **9** (3): e1001184. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3302846/ [Accessed 5 September 2019]

National Institute for Health and Care Excellence (2011, updated 2019) *Caesarean section*. Clinical guideline [CG132]. [Online]. Available from: https://www.nice.org.uk/guidance/cg132 [Accessed 5 September 2019]

National Institute for Health and Care Excellence. (2008) *Inducing labour.* Clinical guideline [CG70]. [Online]. Available from: https://www.nice.org.uk/guidance/cg70/evidence/full-guideline-pdf-241871149 [Accessed 9 September 2019]

National Institute for Clinical Excellence (2014, updated 2017) *Intrapartum care for healthy women and babies*. Clinical guideline [CG190]. [Online]. Available from: https://www.nice.org.uk/guidance/cg190 [Accessed 9 September 2019]

National Institute for Clinical Excellence (2019) *Intrapartum care for women with existing medical conditions or obstetric complications and their babies*. NICE guideline [NG121] [Online]. Available from: https://www.nice.org.uk/guidance/ng121 [Accessed 5 September 2019]

Royal College of Obstetricians and Gynaecologists (2015) *Birth after previous Caesarean birth. Green-top Guideline No. 45.* 2nd ed. [Online]. Available from: https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg45/ [Accessed 5 September 2019]

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Royal College of Obstetricians and Gynaecologists (2016) *Birth options after previous caesarean section*. [Online]. Available from: https://www.rcog.org.uk/en/patients/patient-leaflets/birth-after-previous-caesarean/ [Accessed 6 September 2019]

5.0 Governance

5.1 Document review history

Version number	Review date	Reviewed by	Changes made
5.2	February 2021	Miss Swati Velankar	Addition- Care of Women with previous Uterine surgery Archived Guideline on Management of Pregnancy following Uterine Surgery Amendment- Women with previous two or more lower segment caesarean deliveries
5.1	March 2020	Rebecca Daniels	Minor amendments to referral flow chart and proforma. Addition of oxytocin regime for para 3 or lees women and para 4 or above women Ranitidine changed to Omeprazole 20mg BD or 40mg OD due to national shortage of ranitidine. Statistics for risk following 2 previous LSCS amended as per RCOG guidance (section 3.0.3)
5.0	August 2019	Rebecca Daniels	Whole document reviewed in line with NICE guidance NG121

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5.2 Consultation History

Stakeholders Name/Board	Area of Expertise	Date Sent	Date Received	Comments	Endorsed Yes/No
All staff in Women's Health		09/08/2019		See individual comments	
Niamh Kelly	Clinical Governance	08/08/2019	08/08/2019	Comments received	Yes
Jayne Plant	Librarian	March 2019		Comments received	Yes
Diane Summersgill	Midwife	09/08/2019	11/08/2018	Comments received	N/A
Lydia Stratton-Fry	Labour Ward Manager	09/08/2019	12/08/2019	Comments received	Yes
Rachel Pressley	Project lead for Continuity of carer	08/08/19	08/08/19	Comments received	Yes
Ahmad El-Zibdeh		09/08/2019	27/08/2019	Comments received	Yes
Julie Cooper	Head of Midwifery	09/08/2019	28/08/2019	Comments received	Yes
Cath Hudson	Lead Midwife – Risk and Quality Improvement	09/08/2019	28/08/2019	Comments received	Yes
Kailash Nakade	Consultant	09/08/2019	28/08/2019	Comments received at guideline review group	Yes
Faryal Nizami	Consultant	09/08/2019	28/08/2019	Comments received at guideline review group	Yes
Lila Ravel	ANC Lead	01/08/19	01/08/19	Comments received	Yes
Guideline Review Group			28/08/2019	Comments received	Yes
Nidhi Singh	Consultant	11/09/2019	05/09/2019	Read – no comments received	N/A
Erum Khan	Consultant	11/09/2019	17/09/2019	Comments received	Yes
Omar Mulki	Consultant	11/09/2019	16/09/2019	Comments received	Yes
Fran Mngola	Pharmacist	29/04/2020	29/04/2020	Temporary change to omeprazole from ranitidine due to national shortage of ranitidine	Yes

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Guidelines review group	Doctor's and Midwives		28/05/2020	Flow chart (appendix 1) amended Appendix 2 separated into separate appendices (2&3)	Yes
Jayne Plant	Library		09/2020	incorporated	Yes
RCOG			01/2021	incorporated	Yes

5.3 Audit and monitoring

Audit/Monitoring Criteria	Tool	Audit Lead	Frequency of Audit	Responsible Committee/Board
Evidence in notes of: 1.Management plan documented on eCare 2.Documented discussion of risks and benefits of VBAC and ERCS on VBAC proforma and care plan 3.Mode and place of labour 4.Method of fetal monitoring during labour 5.Decision to induce/augment labour will be made with discussion with the Consultant 6.Outcome of mother and baby	Audit – retrospective case note review	Consultant Midwife	Annually	Women's Health Clinical Improvement Group

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5.4 Equality Impact Assessment

As part of its development, this Guideline and its impact on equality has been reviewed. The purpose of the assessment is to minimise and if possible, remove any disproportionate impact on the grounds of race, gender, disability, age, sexual orientation, religion or belief, pregnancy and maternity, gender reassignment or marriage and civil partnership. No detriment was identified. Equality Impact assessments will show any future actions required to overcome any identified barriers or discriminatory practice.

Equality Impact Assessment			
Division	Women and Children's Health	Department	Maternity
Person completing the EqIA	Syeda Tahir	Contact No.	
Others involved:	Swati Velankar	Date of assessment:	09/02/21
Existing policy/service	Yes	New policy/service	No

Will patients, carers, the public or staff be affected by the policy/service?	Yes
If staff, how many/which groups will be affected?	*All Staff*

Protected characteristic	Any impact?	Comments
Age	NO	Positive impact as the policy aims to recognise diversity, promote inclusion and fair treatment for patients and staff
Disability	NO	
Gender reassignment	NO	
Marriage and civil partnership	NO	
Pregnancy and maternity	NO	
Race	NO	
Religion or belief	NO	
Sex	NO	
Sexual orientation	NO	

What consultation method(s) have you carried out?			
Consultation via email, Guideline Review Group meeting			
How are the changes/amendments to the policies/services communicated?			
Via email, Risky Business email, intranet, staff meetings			
What future actions need to be taken to overcome any barriers or discrimination?			
What?	Who will lead this?	Date of completion	Resources needed
Review date of EqIA	02/2024		

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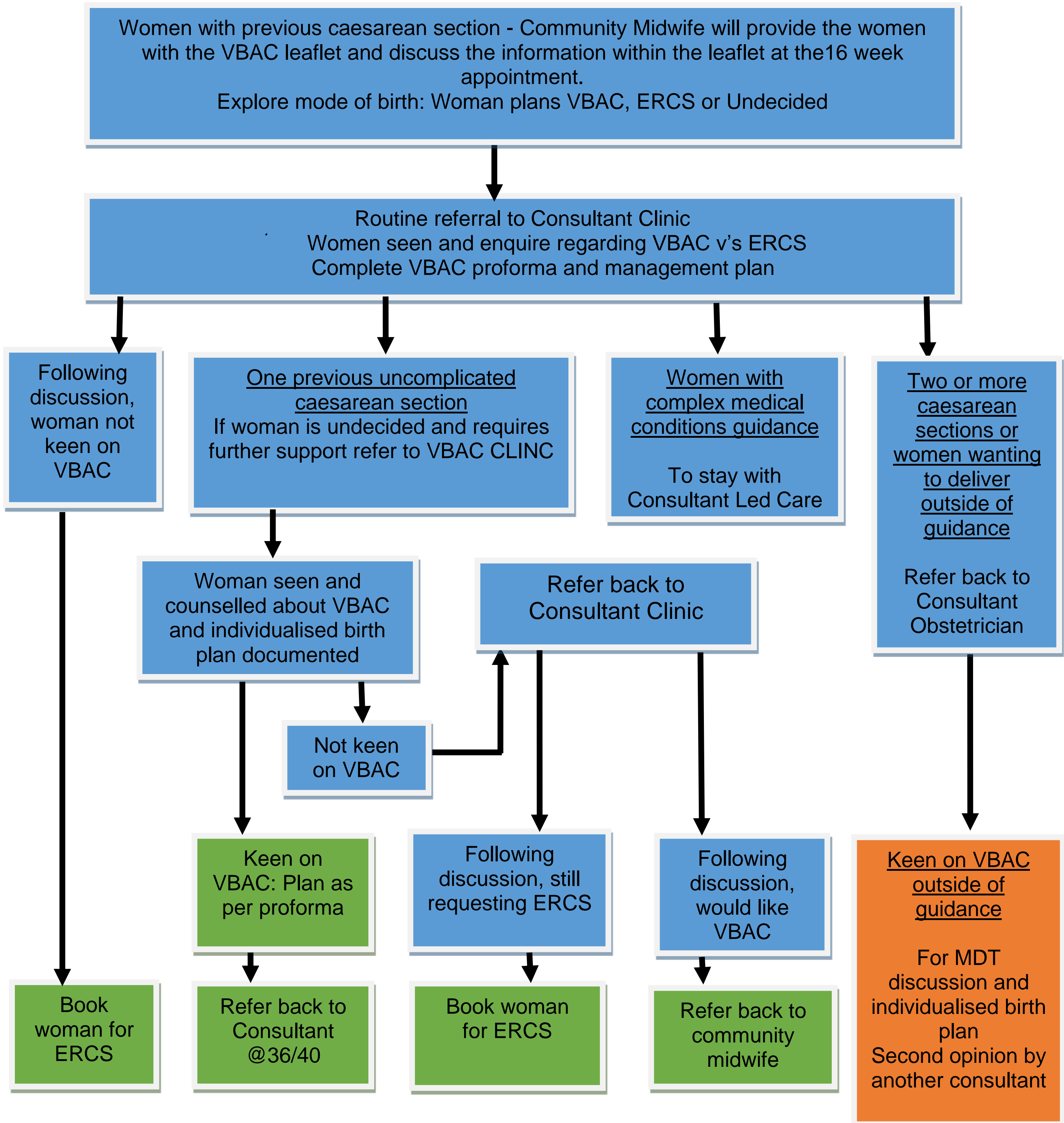
Appendix 1: VAGINAL BIRTH AFTER CAESAREAN SECTION (VBAC) REFERRAL PATHWAY



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Appendix 2: VBAC Proforma

(Figures in this plan taken from: Royal College of Obstetricians Gynaecologists (2015) *Birth after previous Caesarean birth. No. 45*. 2nd ed.)

Affix Patient Sticker

Gestation at initiation of discussion:	**Parity:** **EDD:**		
Points of discussion	**Details of discussion and plans made**		Tick when discussed
Contra-indication for VBAC	**Medical or obstetric conditions that preclude VBAC (state)** …………………………………………………………………………….. **NB – review of placental localisation to exclude placenta praevia**		☐ ☐
Modes of delivery	**VBAC v's Elective Repeat Caesarean Section (ERCS)**		☐
Likelihood of:	**Successful VBAC (1 previous CS, no previous vaginal birth) 72-75%**		☐
	Successful VBAC (1 previous CS, 1 previous vaginal birth) 85-90%		☐
Likelihood of:	**VBAC**	**ERCS**	
Uterine rupture	5 per 1000 / 0.5%	<2 per 10,000 / 0.02%	☐
Blood transfusion	2 per 100 / 2%	1 per 100 / 1%	☐
Maternal mortality	4 per 100,000 / 0.004%	13 per 100,000 / 0.013%	☐
Significant complications in future pregnancies	Not applicable of successful VBAC	Increased likelihood of placenta praevia / morbidity adherent placenta	☐
Transient respiratory Morbidity	2-3 per 100 / 2-3%	4-6 per 100 / 4-6%	☐
Cut to baby's skin	Not applicable	2 per 100 / 2%	☐
Antepartum stillbirth beyond 39 weeks while waiting spontaneous labour	10 per 100,000 / 0.01%	Not applicable but increased risk for future pregnancy	☐
Hypoxic Ischaemic Encephalopathy (HIE)	8 per 10,000 / 0.08%	<1 per 10,000 / <0.01%	☐
Benefit of VBAC v's CS	**VBAC:** Greater chance of future vaginal birth Shorter recovery period Lower risk of minor & major complications of surgery Reduced risk of baby having respiratory problems after birth **ERCS:** Planned time of delivery (but risk of labour before this is 10%) Reduced risk of perineal trauma, injury to vagina, early post-partum haemorrhage		☐ ☐
Information leaflet(s) provided:	RCOG (2016) Birth options after previous caesarean section		☐
Place of birth and monitoring in labour:	Hospital birth recommended in Obstetric unit Continuous electronic fetal heart rate monitoring		☐
Decision / Plan following discussion:	**VBAC** ☐	**ERCS** ☐	

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Appendix 3: VBAC Management plan

Management plan in the event of:	
Preterm labour (<37+0 weeks)	**VBAC** ☐ **Urgent / EM LSCS** ☐
Spontaneous labour before ERCS date	**VBAC** ☐ ☐ **Depends on stage of labour – details below** **EM LSCS**☐
Discussion: to consider	**Cannulation** ☐ **Active third stage** ☐ **Birthing pool: Labour only** ☐ **Labour and delivery** ☐
No spontaneous labour after 41 weeks – discussed with senior obstetrician	**Stretch and sweep from 40 weeks** ☐ **ERCS** ☐ **Induction of labour (details below)** ☐ **Chemical** ☐ **Mechanical** ☐
For discussion with Obstetrician - Date:	
Induction of labour: Inform woman that:	It is not contra-indicated If previous CS, stillbirth risk after 39 weeks is 1.5-2 fold higher compared to risk It is associated with 2-3 fold increased risk of uterine rupture especially with unfavourable cervix and use of PGE2 It is associated with 1.5 fold increased risk of CS Use of Oxytocin associated with a 4 fold increased risk of scar rupture Offer alternate option of CS Conduct full clinical assessment including abdominal palpation (and VE if indicated) **Document:** Time intervals for serial vaginal examinations The parameters of progress that would necessitate discontinuing VBAC **Documented birth plan on eCare:**
ERCS booking details (if required):	
Signature................................... Name & Designation...	**Date:**
On admission to Labour Ward please ensure the mothers birth preferences are reviewed by the mother, Midwife and Consultant Obstetrician / Registrar	