Queensland Clinical Guidelines
Translating evidence into best clinical practice

Vaginal birth after caesarean (VBAC)
Queensland Clinical Guideline: Vaginal birth after caesarean (VBAC)

Flow chart: Decision-making framework for women with previous caesarean section

Favouring likelihood of VBAC:
- Previous vaginal birth—strongest predictor of VBAC
- Spontaneous onset of labour
- Higher Bishop score
- Malpresentation as indication for previous CS
- Uncomplicated and low risk pregnancy

Reducing likelihood of VBAC:
- Induction of labour
- Previous CS for dystocia, CPD or failed IOL
- No previous vaginal birth
- Obesity
- Current fetal macrosomia (4 kg or more)
- Advanced maternal age
- Diabetes
- Hypertensive disorders

Contraindications for VBAC:
- Previous uterine rupture
- History of classical CS
- Contraindication to vaginal birth regardless of history of CS (e.g. placenta praevia)

Decision and plan
By 36+0 weeks
- Woman to make decision on planned mode of birth where possible
- Ensure woman understands that she may change her mind and/or withdraw consent at anytime
- Discuss consent requirements for VBAC and ERCS and obtain valid and informed consent according to woman’s decision
- Discuss and document individualised management plan including preferences in event of:
  - Preterm labour
  - Spontaneous labour before ERCS date
  - No spontaneous labour by 41 weeks and IOL
  - Augmentation risks and benefits
  - ERCS date where applicable

Recommend ERCS

Proceed according to planned VBAC (refer to Planned VBAC flowchart) or planned ERCS

Booking in
- Identify history of previous CS
- Obtain obstetric history including:
  - Dates of previous CS and vaginal birth(s) if applicable
  - Number of previous CS
  - Type of CS performed
  - Obtain operation record and medical notes/record wherever possible
  - Reason/indication for previous CS
  - History of uterine rupture
- Provide woman with standardised written information

Discussion/counselling
- Following morphology ultrasound
- Planned VBAC is safe and appropriate for majority of women with a single previous CS
- Facilitate obstetric consultation if history of two or more previous CS or history of complex uterine scars
- Facilitate discussion using evidence based, balanced, consistent information about the risks and benefits of VBAC and ERCS
- Wherever possible, use a standardised documentation to facilitate counselling and improve decision making process
- Incorporate in discussion:
  - Individual risks, benefits, concerns, questions and preferences
  - Unique history and circumstances
  - Individual likelihood of successful VBAC
  - Capabilities of local facility
- Consider need for anaesthetic review
- If suspected fetal macrosomia, consider USS at 36 weeks

BMI: body mass index; CPD: cephalopelvic disproportion; CS: caesarean section; ERCS: elective repeat caesarean section; HHS: Hospital and Health Service; IOL: induction of labour; USS: ultrasound scan; VBAC: vaginal birth after caesarean section

Flowchart: F20.12-2-V1-R25
Flow Chart: Planned vaginal birth after caesarean (VBAC)

Planned VBAC

Spontaneous labour?

Induction of labour
- Increased risk of uterine rupture
- Mechanical methods of induction preferred due to increased risk of rupture with prostaglandins

Intrapartum admission
- Review medical record (including prior CS report) and labour care plan
- Notify obstetric team
- Consider:
  - Insertion of IVC
  - Full blood count
  - Blood group and hold
  - One to one midwifery care
  - Recommend continuous electronic fetal monitoring

Satisfactory progress?

Yes

Emergency CS

No

Consider augmentation?

Yes

Consult with experienced obstetrician
- Discuss risks and benefits with woman
- Be cautious in use of oxytocin, especially at high doses

Satisfactory progress?

Yes

Vaginal birth

No

No

CS: caesarean section; CTG: cardiotocograph; FHR: fetal heart rate; IVC: intravenous catheter; VBAC: Vaginal Birth after Caesarean
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## Abbreviations

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<th>Definition</th>
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<td>ARM</td>
<td>Artificial rupture of membranes, amniotomy</td>
</tr>
<tr>
<td>BMI</td>
<td>Body mass index</td>
</tr>
<tr>
<td>CEFM</td>
<td>Continuous electronic fetal monitoring</td>
</tr>
<tr>
<td>CS</td>
<td>Caesarean section</td>
</tr>
<tr>
<td>ERCS</td>
<td>Elective repeat caesarean section</td>
</tr>
<tr>
<td>IOL</td>
<td>Induction of labour</td>
</tr>
<tr>
<td>VBAC</td>
<td>Vaginal birth after caesarean section</td>
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</table>

## Definitions

<table>
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<tr>
<th>Definition</th>
<th>Description</th>
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<tbody>
<tr>
<td>Bishop score</td>
<td>A score used to assess the cervix and inform the choice of method of induction of labour. Features of the cervix are scored and then the scores are summed.</td>
</tr>
<tr>
<td>Continuity of care</td>
<td>Where the same health professional or professionals provide care throughout a woman’s pregnancy, birth and the post birth period.</td>
</tr>
<tr>
<td>Elective repeat caesarean section (ERCS)</td>
<td>Planned caesarean birth by a woman who has had one or more prior caesarean section (CS), whether the previous caesarean births were electively scheduled or not.</td>
</tr>
<tr>
<td>Inter-pregnancy interval</td>
<td>Time from CS (birth) to conception or onset of subsequent pregnancy.</td>
</tr>
<tr>
<td>Neonatal respiratory morbidity</td>
<td>Combined rate of transient tachypnoea of the newborn and respiratory distress syndrome.¹</td>
</tr>
<tr>
<td>Obstetrician</td>
<td>Local facilities may, as required, differentiate the roles and responsibilities assigned in this document to an “Obstetrician” according to their specific practitioner group requirements; e.g. General Practitioner Obstetricians, Specialist Obstetricians, Consultants, Senior Registrars and Obstetric Fellows.</td>
</tr>
<tr>
<td>Planned VBAC</td>
<td>Planned VBAC (vaginal birth after caesarean) refers to the intended mode of birth of any woman who has had a previous caesarean section who plans to have a vaginal birth rather than an ERCS.</td>
</tr>
<tr>
<td>Planned VBAC rate</td>
<td>The proportion of pregnant women with a history of CS who are planning a VBAC as their preferred mode of birth. A planned VBAC may result in a VBAC or CS.</td>
</tr>
<tr>
<td>Primary caesarean section</td>
<td>A woman’s first CS.</td>
</tr>
<tr>
<td>Uterine dehiscence</td>
<td>Disruption of the uterine muscle with intact uterine serosa.¹</td>
</tr>
<tr>
<td>Uterine rupture</td>
<td>Disruption of the uterine muscle extending to and involving the uterine serosa or disruption of the uterine muscle with extension to the bladder or broad ligament.¹</td>
</tr>
<tr>
<td>VBAC</td>
<td>Vaginal birth following one or more previous CS.</td>
</tr>
<tr>
<td>VBAC rate</td>
<td>The proportion of planned VBAC which results in vaginal birth.</td>
</tr>
</tbody>
</table>
1 Introduction

A higher proportion of women are presenting with a history of caesarean section (CS) due to the increasing rate of primary CS. Options for the subsequent birth are:

- A planned vaginal birth after caesarean (VBAC) which will result in either a vaginal birth or an emergency CS.
- An elective repeat CS (ERCS)

Termination of pregnancy in women with previous CS is not addressed in this guideline. Refer to Queensland Clinical Guideline: Termination of pregnancy.3

1.1 Background

There are infrequent, yet significant risks with both planned VBAC and ERCS. Clinical outcomes are determined mainly from epidemiological studies5 and one randomised control trial (n=22).6 Findings from a large systematic review concluded planned VBAC is a reasonable and safe choice for most women.4 However, individual circumstances may increase the risks associated with VBAC.4 Facilitating informed decision-making through the provision of consistent, accurate and individualised advice is vital to enable women to make decisions about their birth options.

Table 1. Background

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>International context</td>
<td>• History of rising CS rates in Australia and around the world, leading to an increasing proportion of women having a subsequent pregnancy with a history of CS7-9</td>
</tr>
<tr>
<td></td>
<td>• VBAC is supported by professional colleges from across the world as an acceptable birth option1,10-12</td>
</tr>
<tr>
<td>Australian context</td>
<td>• VBAC rates increased in the 1990s and reduced overall CS numbers</td>
</tr>
<tr>
<td></td>
<td>o This trend was reversed by growing concern about uterine rupture13</td>
</tr>
<tr>
<td></td>
<td>• ERCS is the most common indication for a CS7 and is one of the greatest contributors to the overall CS rate14,15</td>
</tr>
<tr>
<td></td>
<td>• CS rate in Australia in 2017 was 35%2</td>
</tr>
<tr>
<td>Queensland context</td>
<td>• CS rate in Queensland in 2018 was 35.8%16</td>
</tr>
<tr>
<td></td>
<td>• In 2016 and 2017 in Queensland17:</td>
</tr>
<tr>
<td></td>
<td>o 50.0% CS rate in private facilities</td>
</tr>
<tr>
<td></td>
<td>o 28.9% CS rate in public facilities</td>
</tr>
<tr>
<td></td>
<td>• In Queensland from 2016 to 201818:</td>
</tr>
<tr>
<td></td>
<td>o 42.5% of CS were repeat CS</td>
</tr>
<tr>
<td></td>
<td>o 57.5% were primary CS</td>
</tr>
<tr>
<td>Service capability</td>
<td>• VBAC not specified in current Clinical Services Capability Framework18</td>
</tr>
<tr>
<td></td>
<td>• Develop locally agreed criteria for VBAC care to reflect local resources and the ability of the birthing facility to respond to emerging situations</td>
</tr>
<tr>
<td></td>
<td>• Ensure the service has capacity to provide:</td>
</tr>
<tr>
<td></td>
<td>o Access to an emergency CS19,20 including clearly defined Category 1 CS policy/workplace instruction and processes</td>
</tr>
<tr>
<td></td>
<td>o Continuous electronic fetal monitoring during labour1,11</td>
</tr>
<tr>
<td></td>
<td>o One-to-one midwifery care during labour1,11</td>
</tr>
<tr>
<td></td>
<td>o Advanced neonatal resuscitation11</td>
</tr>
<tr>
<td></td>
<td>o Onsite blood transfusion19</td>
</tr>
<tr>
<td></td>
<td>o 24 hour anaesthetic services</td>
</tr>
<tr>
<td>Terminology</td>
<td>• Language is known to reflect and influence attitudes and behaviour21</td>
</tr>
<tr>
<td></td>
<td>• A wide variety of terms, phrases and acronyms have been developed to refer to women and birth after one or more CS21</td>
</tr>
<tr>
<td></td>
<td>• Woman-centred language and terminology is preferred in order to provide safe, woman-centred care and facilitate informed consent</td>
</tr>
<tr>
<td></td>
<td>• Important terms used in this guideline include:</td>
</tr>
<tr>
<td></td>
<td>o VBAC</td>
</tr>
<tr>
<td></td>
<td>▪ Preferred instead of ‘trial of scar’ and ‘trial of labour after caesarean’</td>
</tr>
<tr>
<td></td>
<td>o Planned VBAC rate—the proportion of pregnant women with a history of CS who are planning a VBAC as their preferred mode of birth (may result in a VBAC or CS)</td>
</tr>
<tr>
<td></td>
<td>o VBAC rate—the proportion of planned VBAC resulting in vaginal birth ▪ Preferred instead of ‘successful VBAC rate’</td>
</tr>
</tbody>
</table>
2 Benefits and risks of planned VBAC and ERCS

The absolute risk of adverse outcomes for both planned VBAC and ERCS is small.\(^8,22\) The benefits to a woman of having a planned VBAC are generally related to vaginal birth, as this typically has the lowest morbidity.\(^1,23,24\) Most maternal morbidity related to planned VBAC occurs if an emergency CS (as opposed to an ERCS\(^11\)) is required.\(^23,25\) Consequently, a woman’s risk of morbidity is closely related to her probability of VBAC.\(^25\)

Comparison in outcomes between VBAC and ERCS have been reported in large observational cohort studies.\(^4,22,26\) Outcome reports for the planned VBAC group include women who experienced uterine rupture and/or had an emergency CS.

2.1 Benefits and risks of planned VBAC

Table 2. Risks and benefits of planned VBAC

<table>
<thead>
<tr>
<th>Maternal benefits</th>
<th>Maternal risks</th>
</tr>
</thead>
</table>
| • 72–75% chance of vaginal birth\(^4\)  
  o Refer to Section 3 Likelihood of VBAC  
  • If vaginal birth:  
    o Shorter hospital stay\(^4,19,23\)  
    o Faster recovery\(^1,25\)  
    o Avoidance of major surgery\(^25\) and multiple CS in future\(^11\)  
    o Increased likelihood of future vaginal birth\(^1\)  
    o Sense of satisfaction and empowerment in having vaginal birth if desired\(^11,27\)  
  • Reduced risk of maternal mortality compared with ERCS (0.004% versus 0.013%)\(^1,4,23\)  
    o Extremely rare event regardless of mode of birth\(^12\)  
  • Increased likelihood of breastfeeding compared with ERCS\(^8,28,30\)  
    o Increased likelihood remains even if planned VBAC results in emergency CS\(^28\)  | • 25–28% chance of emergency CS\(^1\)  
  o Refer to Section 3 Likelihood of VBAC  
  o Emergency CS is associated with increased morbidity compared to ERCS  
  • Around 0.5% risk of uterine rupture  
    o If rupture occurs, it may be associated with significant maternal and perinatal morbidity [refer to Section 6.2 Uterine rupture]  
    o Estimated incidence varies across studies\(^12\)  
    o Risk increases with induction and augmentation of labour [refer to Section 5 Induction and augmentation of labour]  
  • If vaginal birth:  
    o Potential trauma to perineum and pelvic floor\(^1,11,31,32\)  
      ▪ Refer to Queensland Clinical Guideline: Perineal care\(^33\)  
      ▪ Increased risk of anal sphincter injury for women having second birth following one previous CS compared with nulliparous women\(^32,34-37\)  
        ▪ Birthweight strongest predictor\(^24\)  
        ▪ Rate of instrumental birth also increased\(^24\) (refer to Queensland Clinical Guideline: Instrumental vaginal birth\(^38\)) |

<table>
<thead>
<tr>
<th>Fetal and neonatal benefits</th>
<th>Fetal and neonatal risks</th>
</tr>
</thead>
</table>
| • Increased likelihood of breastfeeding at birth, hospital discharge and six to eight weeks postpartum\(^8,28,30\) | • Increased risk of perinatal mortality compared with ERCS (0.13% versus 0.05%)\(^6\)  
|                             | 0.1% prospective risk of antepartum stillbirth beyond 39+0 weeks (recommended timing for ERCS) while awaiting spontaneous labour\(^1,39\)  
|                             | o Similar to nulliparous women  
|                             | • Increased risk of hypoxic ischaemic encephalopathy (HIE) and associated long term sequelae compared with ERCS\(^40\)  
|                             | o 0.08% versus less than 0.01%\(^40\)  
|                             | o Majority of cases associated with uterine rupture\(^45\) |
2.2 Benefits and risks of planned ERCS

Table 3. Benefits and risks of planned ERCS

<table>
<thead>
<tr>
<th>Maternal benefits</th>
<th>Maternal risks</th>
</tr>
</thead>
</table>
| • Extremely low risk of uterine rupture\(^1\)  
  o Less than 0.03%\(^4\)  
• Ability to plan a known ERCS date\(^1\)  
  o May change based on clinical circumstances  
  o Increased likelihood of avoiding an emergency CS  
• Prevalence of urinary incontinence and pelvic organ prolapse is lower in women who have only given birth by CS than in those who have given birth vaginally\(^4\)  
  o Difference in rates of urinary incontinence appear to level out with increasing age\(^4\)  
• If fertility is no longer desired, option for sterilisation\(^1\)  | • Potential difficulties conceiving further pregnancies\(^5\)  
• More likely to require CS for future births  
  o Increasing risk of maternal morbidity with increasing number of CS.  
  o Refer to Table 4. Additional considerations  
• Increased risk of maternal mortality compared with planned VBAC\(^4\)  
  o 0.013% versus 0.004%\(^1,4\)  
• Decreased rates of breastfeeding\(^8,28,30,42\) |

<table>
<thead>
<tr>
<th>Fetal and neonatal benefits</th>
<th>Fetal and neonatal risks</th>
</tr>
</thead>
</table>
| • Reduced risk of HIE compared with planned VBAC (less than 0.01% compared with 0.08%)\(^1,40\)  
  o Related to reduced risk of uterine rupture  
• Lower rate of perinatal mortality compared to planned VBAC (0.05% versus 0.13%)\(^4\)  | • Decreased likelihood of breastfeeding at birth, hospital discharge and six to eight weeks postpartum\(^8,28-30\) |

2.3 Additional considerations

Table 4. Additional considerations

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hysterectomy</td>
<td>• The risk of hysterectomy has not been shown to differ significantly between planned VBAC and ERCS(^4,24)</td>
</tr>
</tbody>
</table>
| Haemorrhage and transfusion | • One systematic review and meta-analysis did not demonstrate a significant difference in rates of haemorrhage and blood transfusion between planned VBAC and ERCS\(^24\)  
• Evidence is limited due to inconsistency in definitions and subjectivity in measurement\(^4\)  
• Some retrospective cohort studies have found an increased risk of haemorrhage and transfusion with planned VBAC compared to ERCS\(^6,8\) |
| Multiple CS | • Risk of serious maternal morbidity increases in a dose response fashion as the number of CS increases\(^43\)  
• Risk of the following outcomes were found to consistently increase with the number of CS\(^43\):  
  o Hysterectomy\(^44\)  
  o Haemorrhage and blood transfusion  
  o Adhesions  
  o Surgical injuries  
  o Placenta praevia and accreta  
• No change has been found in rates of infection or abruption with increasing number of CS\(^43\) |
| Neonatal respiratory morbidity | • Neonatal respiratory morbidity can occur regardless of mode of birth, making conclusions about the relationship to method of labour and birth unclear\(^4\)  
• Studies are conflicting regarding whether VBAC or ERCS results in more transient tachypnoea of newborn\(^4,45\)  
• CS is known to be associated with respiratory morbidity, especially prior to 39+0 weeks gestation  
  o One trial reported that for elective CS, respiratory morbidity was 11.4%, 6.2% and 1.5% at 37, 38 and 39 weeks gestation respectively\(^46\) |
3 Likelihood of VBAC

Table 5. Likelihood of VBAC

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</table>
| General                 | • Information about the likelihood of a VBAC assists women when deciding on their planned mode of birth  
                          • Reported rates of VBAC are highly variable across studies  
                          • Meta-analysis of over 100,000 VBAC labours reported a pooled VBAC rate of 74%\(^4\)  
                          o Reported VBAC rates ranged from 49% to 87%\(^4\)  |
| Prediction models       | • Several prediction models and algorithms, tools and calculators have been developed to predict likelihood of VBAC\(^1\)  
                          o These are not yet applied routinely in decision-making process and their precise role is not yet established\(^1\)  
                          • Pelvimetry is not useful for predicting likelihood of VBAC and is not recommended for use in decision-making about mode of birth\(^19\)  |
| Models of care          | • One-to-one support in labour reduces likelihood of CS\(^19\)  
                          • One small study found that women receiving continuity of care from a midwife experienced shorter labours and increased VBAC rates compared to women receiving standard maternity care\(^47\)  
                          • One study found that planned VBAC and VBAC rates improved significantly when midwives were the primary intrapartum care providers, without compromising maternal or neonatal outcomes\(^48\)  |
| Factors not statistically significant | • Smoking\(^49\)  
                          • Inter-pregnancy interval\(^49\)  
                          o Refer to Definitions  
                          • Gestational weeks\(^49\)  
                          • Epidural use in labour\(^49\)  
                          • Previous CS for fetal distress\(^49\)  |
| Recommendation          | • Where possible, audit local VBAC rates and benchmark against other Queensland maternity services  
                          o When counselling women about mode of birth, provide locally derived VBAC rates to account for differences in populations, VBAC policies and healthcare provision\(^1\)  
                          • Counsel women according to individual factors which will affect probability of VBAC  
                          o Refer to Table 6. Factors favouring and reducing rates of VBAC  |

Table 6. Factors favouring and reducing rates of VBAC

<table>
<thead>
<tr>
<th>Factors favouring likelihood of VBAC</th>
<th>Factors reducing likelihood of VBAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous vaginal birth(^11,12,49)</td>
<td>No previous vaginal birth(^11)</td>
</tr>
</tbody>
</table>
| o Strongest predictor of vaginal birth, especially previous VBAC\(^11,49\)  | Previous CS for:  
| o VBAC rates are reported to be 85–91% in this cohort | o Dystocia or failure to progress\(^11,12,49\)  
| Fetal malpresentation was indication for previous CS\(^49\)  | o Failed induction\(^49\)  
| Spontaneous onset of labour\(^12\)  | o Cephalopelvic disproportion\(^49\)  
| Higher Bishop score\(^12,49\)  | Induction of labour (IOL)\(^11,12,49\)  
| Uncomplicated, low risk pregnancy\(^11\)  | Hypertensive disorders complicating pregnancy\(^49\)  
|                                                                 | Obesity\(^49,50\)  
|                                                                 | Advanced maternal age\(^11,12,49\)  
|                                                                 | Current fetal macrosomia of 4 kg or more\(^11,12,49\)  
|                                                                 | Diabetes (both gestational and pre-existing)\(^49\)  |
4 Decision-making and planning

4.1 Clinical standards

Table 7. Clinical standards

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</thead>
</table>
| Following primary CS    | • Offer women the opportunity to debrief and discuss their birth experience, as well as their potential suitability for a planned VBAC in the future\(^{11}\)  
  • Explain the reason for CS to facilitate good understanding  
  • Discuss planning for future pregnancies and births including:  
    o Contraception  
    o Interval from CS to next pregnancy and birth (refer to Section 4.3.1 Inter-pregnancy interval)  
    o Information regarding considerations for mode of birth in subsequent pregnancies  
  • Provide the woman and her general practitioner with written information regarding the primary CS and discussion |
| Antenatal care          | • Offer women access to individualised advice and care planning throughout pregnancy  
  • Recommend counselling for mode of birth be conducted by an experienced midwife or obstetrician soon after morphology ultrasound scan\(^{1}\)  
    o Discuss, consult and refer according to professional guidelines\(^{51}\)  
    o Recommend decision regarding mode of birth be made by 36+0 weeks gestation\(^{1,11}\)  
    o Refer to Section 4.2 Antenatal counselling |
| Standard care           | • Refer to QCG Standard care guideline\(^{52}\) for further information on clinical standards relevant to VBAC including:  
    o Woman-centred care  
    o Informed consent  
    o Informed decision-making  
    o Communication standards  
    o Culturally safe and appropriate care  
    o Documentation  
  • If woman declines recommended care, refer to Partnering with the woman who declines recommended maternity care guideline\(^{53}\) |
| Timing of ERCS          | • If woman decides on ERCS, book ERCS after 39+0 weeks  
    o Risk of respiratory morbidity decreases after 39+0 weeks\(^{19}\) |
4.2 Antenatal counselling

Table 8. Antenatal counselling

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| Decision challenges   | • Qualitative research has found that women experience various challenges when deciding between a planned VBAC or ERCS including:  
  - Difficulty accessing information
  - A sense of reluctance and lack of support about VBAC from health care providers, even from ‘pro-VBAC’ services
  - Emphasis on risks of VBAC without inclusion of the benefits
    - Risks emphasised include uterine rupture, death of woman, baby or both, risk of having an emergency CS
  - A sense of feeling irresponsible or careless for planning a VBAC
  - Unclear, widely variable and contrasting information from the health care system and professionals                                                                                      |
| Decision aids/tools   | • May facilitate decision-making through:  
  - Reduced anxiety
  - Lowering decisional conflict
  - Improved levels of knowledge and satisfaction
  - Increasing perception of having made an informed choice
  - Checklists are helpful for guiding antenatal counselling
  - Other tools may include:  
    - Telephone decision coaching
    - One-on-one counselling
    - Group information
    - Support sessions
    - Decision protocols or algorithms
  - Provide written information to women to guide discussion
  - For examples, refer to:  
    - Appendix A: Example VBAC counselling checklist
    - Appendix B: Example management plan checklist                                                                                                           |
| Models of care        | • A prospective cohort study in Australia found that a dedicated ‘next birth after caesarean clinic’ combined with standardised labour management increased planned VBAC rates from 17.2% to 27%.
  • Qualitative research found that a midwifery led ‘next birth after caesarean clinic’ was an effective strategy to meet women’s informational needs and address decisional conflict around VBAC |
| Documentation          | • Document:  
  - Discussions in the woman’s clinical record
  - The woman’s acknowledgement of discussions (may be included on a VBAC or ERCS consent form—refer to local facility guidelines)
  - Decisions regarding mode of birth and the agreed plan of care, including if labour commences before the expected ERCS date
  - The use of interpreter services where language barriers are present
  - If planning VBAC, agreed intrapartum plan of care
  - Documentation on a standardised checklist is recommended
  - For examples, refer to:  
    - Appendix A: Example VBAC counselling checklist
    - Appendix B: Example management plan checklist                                                                                                           |
| Decision              | • Plan for decision regarding mode of birth before 36 weeks and review plan if requested by woman at any time
  • Address possible outcomes and clinical circumstances and outline options should these arise (e.g. onset of spontaneous labour before planned ERCS)
  • Refer to Appendix B: Example management plan checklist                                                                                                      |
| Recommendation        | • Present risks and benefits in an accurate balanced and systematic way to enable women to make an informed decision
  • Individualise discussions to woman’s medical circumstances, preferences and individual likelihood of VBAC
  • Be mindful that women weigh potential risks and benefits uniquely
  • Consider intended family size and risk of additional CS with recognition that future plans may be uncertain and may change                                                                 |
### 4.3 Mode of birth considerations

#### Table 9. Mode of birth considerations

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **Contraindications for planned VBAC** | - Contraindications for VBAC include:  
  - Previous uterine rupture\(^1,10,56,59\)  
    - Higher risk (5% or greater) of recurrent uterine rupture in labour\(^1,59\)  
    - Previous classical CS\(^1,10,60\)  
    - Other contraindications to vaginal birth which apply irrespective of history of CS (e.g. major placenta praevia)\(^1\)  
  - If history of complicated uterine scars, exercise caution and seek expert advice  
    - Insufficient evidence on safety of VBAC in women with history of inverted T or J incisions, low vertical uterine incisions or significant inadvertent uterine extension at the time of primary CS\(^1,40,61,62\)  
    - Recommend mode of birth decisions are made on case by case basis in consultation with an experienced obstetrician with access to details of previous surgery\(^1\) |
| **Clinical history** | - At booking in, obtain previous birth information including:  
  - Dates of previous CS and vaginal birth(s) if applicable  
  - Number of previous CS  
  - Type of CS performed  
  - Operation report to verify the type of uterine incision, previous uterine closure technique, and any perioperative complications  
  - Indication(s) for previous CS  
  - History of uterine rupture  
  - Ideally obtain the operation report prior to the initial discussion with the woman  
    - Request early in pregnancy, as it can be difficult to access operative notes performed at other facilities  
  - VBAC with an unknown type of incision has not been associated with an increased risk of uterine rupture\(^25,63\)  
    - Reasonable to plan for VBAC unless there is high suspicion of previous classical uterine incision (e.g. previous CS at extremely preterm gestation)\(^25\)  
    - There is conflicting and insufficient evidence regarding single versus double layer uterine closure at CS and risk of uterine rupture in subsequent pregnancies\(^11,12,64,65\) |
| **Individual preferences** | - Woman’s decision will be influenced by many factors including:  
  - Previous experience of a vaginal birth\(^5\)  
  - Feelings about previous CS\(^5\)  
  - Family considerations including recovery time\(^5\)  
  - Likelihood of VBAC (refer to Section 3 Likelihood of VBAC)  
  - Unique and individual perception of risk  
  - A sense that labour and vaginal birth may be empowering\(^23\)  
  - Desire for partner’s involvement\(^23\)  
  - Scheduling convenience\(^23\)  
  - Desire to avoid pain of labour\(^23\)  
  - Desire for sterilisation\(^23\)  
  - Cultural identity, values and beliefs |
| **Facility** | - The capabilities of the maternity service\(^18\)  
  - If the local hospital cannot provide VBAC, recommend and facilitate transfer to a hospital that offers planned VBAC  
    - Refer to local and professional consultation and referral guidelines\(^11,51\) |
4.3.1 Inter-pregnancy interval

Table 10. Inter-pregnancy interval

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **General**             | • Inter-pregnancy interval refers to time from CS (birth) to conception or onset of subsequent pregnancy  
                          | • Potential concerns about a short interval between CS and subsequent pregnancy include:  
                          |   o Risk of uterine rupture^{10,65-67}                                                  
                          |   o Risk of placenta praevia and abnormal placentation^{68}                              
                          |   o Impact on likelihood of VBAC^{68}                                                  
                          |   o Risk of preterm labour^{69}                                                        |
| **Evidence challenges** | • Limited high level evidence for ideal minimum inter-pregnancy interval for VBAC^{68}                                                  
                          | • Existing body of literature is difficult to interpret due to conflicting results, inconsistent definitions and study design limitations^{65,66,70-73}  
                          | • Variation among international professional organisations regarding recommended inter-pregnancy interval for VBAC^{1,10,11,25} |
| **Recommendation**      | • Available evidence indicates that birth spacing is an independent risk factor for uterine rupture, placenta praevia and abnormal placentation^{68}  
                          | • Inform women that an inter-pregnancy interval of less than 12 months is associated with an increased risk of^{68}:  
                          |   o Uterine rupture^{67,68,72,74}                                                      
                          |   o Placenta praevia^{68}                                                              
                          |   o Placental abruption^{68}                                                          
                          |   o Preterm birth^{73,75}                                                             
                          | • A short inter-pregnancy interval is not a contraindication for VBAC                  
                          |   o Facilitate consultation with an experienced obstetrician if inter-pregnancy interval is less than 12 months  
                          |   o Consider clinical and individual circumstances and advise women of risks to enable informed decision-making  
                          | • Inter-pregnancy interval has not been shown to affect VBAC rates for women with spontaneous labour^{26,76} |
### 4.3.2 Two or more previous caesareans

Table 11. Two or more previous caesareans

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| General | • Women with a history of two prior CS appear to have similar VBAC rates as those with one prior CS, although studies have reported mixed findings\(^5\)\(^10\).  
• Limited studies—most are retrospective, low quality evidence with inconsistent findings\(^25\)\(^77\)-\(^79\).  
• Systematic review of literature on vaginal birth after two CS reported\(^80\):  
  o VBAC rate of 71%  
  o Uterine rupture rate of 1.36%  
  o Comparable maternal morbidity with repeat (third) CS  
  o No significant differences in neonatal morbidity, although data was too limited to draw valid conclusions  
• Limited studies reporting on outcomes of women with three or more previous CS\(^10\)\(^25\).  
  o One retrospective cohort study reported similar VBAC rates and maternal morbidity for women with three or more prior CS as those who had an ERCS\(^77\).  
• Studies addressing the risks and benefits of VBAC in women with more than one previous CS have not reached consistent conclusions about how the risk compares with women with only one prior CS\(^25\). |
| Recommendation | • VBAC is a reasonable option for women with a history of two or more prior CS following counselling with an experienced obstetrician\(^1\).  
  o Discuss risk of uterine rupture, maternal morbidity and individual likelihood of vaginal birth when counselling  
  o Use of counselling checklist is recommended  
  o Refer to Appendix B: Example management plan checklist |
5  Induction and augmentation of labour

Table 12. Induction of labour

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queensland context</td>
<td>• In the years 2016 to 2018 (inclusive) in Queensland, for both preterm and term pregnancies in women having their next birth after one or more CS:</td>
</tr>
<tr>
<td></td>
<td>o 72.3% of VBACs had a spontaneous onset of labour</td>
</tr>
<tr>
<td></td>
<td>o 27.7% of VBACs had an induced onset of labour</td>
</tr>
</tbody>
</table>
| Risk of rupture                | • The risk of uterine rupture is increased with IOL and augmentation of labour4,9,26,40,81  
|                                |   • Observational studies currently offer the best, although limited evidence to guide practice10                                   |
|                                |   o Evidence from randomised controlled trials on IOL in setting of VBAC is inadequate and underpowered82                             |
|                                |   • Reported risks of rupture vary widely across studies1,4                                                                                 |
|                                |   • A large Australian cohort study found the following rates of uterine rupture for planned VBAC after one CS9:                      |
|                                |   o Spontaneous labour with no augmentation—0.15%                                                                                     |
|                                |   o Spontaneous labour with augmentation with oxytocin—1.91%                                                                     |
|                                |     ▪ Inconsistent with other studies which report a lower risk of rupture with augmentation compared with IOL4,26,40             |
|                                |   o Induction of labour with oxytocin alone—0.54%                                                                                   |
|                                |   o Induction of labour with prostaglandin alone—0.68%                                                                            |
|                                |   o Induction with both prostaglandin and oxytocin—0.88%                                                                         |
| Method of IOL                  | • The use of prostaglandins is associated with a higher risk of uterine rupture compared with mechanical methods (amniotomy or balloon catheter)1,10 |
|                                |   • Induction with a balloon catheter appears to have a more favourable safety profile compared to induction with dinoprostone (prostaglandin E2) with similar rates of vaginal birth and efficacy83,84 |
|                                |   • Prospective cohort study of women with a previous CS found that IOL with a balloon catheter did not result in a significant increase in adverse maternal or neonatal outcomes compared to ERCS85 |
|                                |   • A case control study demonstrated a relative increase in the risk of uterine rupture with increasing doses of oxytocin86        |
|                                |     o Uterine rupture rate of 2.07% was found at maximum oxytocin dosages of 21–30 milliunits per minute                            |
| Recommendation                 | • Careful assessment by an experienced obstetrician is required when considering induction and/or augmentation of labour in VBAC setting1 |
|                                |   • Induction of labour and augmentation of labour are not contraindicated in VBAC, but are associated with:                          |
|                                |     o Increased risk of uterine rupture10                                                                                           |
|                                |     o Lower rates of VBAC10                                                                                                          |
|                                |   • Inform women of the risks and benefits of induction of labour and augmentation of labour during antenatal counselling       |
|                                |     o Refer to 4.2 Antenatal counselling                                                                                             |
|                                |   • Consider IOL if:                                                                                                               |
|                                |     o Risks of expectant management outweigh the risks of induction and/or augmentation                                             |
|                                |     o Woman prefers IOL/augmentation over CS                                                                                         |
|                                |   • If there is a delay in progress and in the active stage of labour, perform artificial rupture of membranes (ARM) prior to consideration of oxytocin augmentation |
|                                |   • If IOL and/or augmentation proceeds:                                                                                             |
|                                |     o Use mechanical methods of IOL where possible10                                                                               |
|                                |     o Avoid prostaglandins where possible10                                                                                         |
|                                |     o Be cautious in use of oxytocin10, especially in higher doses87                                                                  |
## 6 Intrapartum care

### Table 13. Intrapartum care for VBAC

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On admission</strong></td>
<td>• Notify and consult the obstetric team/medical officer when a woman presents for planned VBAC  &lt;br&gt; • Review the plan of care prepared antenatally in consultation with the woman and revise if necessary  &lt;br&gt;   o Woman may change her choice of birth mode to CS or planned VBAC at any stage, including in labour  &lt;br&gt;   o Respect woman’s choice of mode of birth  &lt;br&gt; • If difficult cannulation is anticipated or additional risk factors are present, insert an intravenous cannula (IVC)  &lt;br&gt;   o Routine siting of an IVC is not required  &lt;br&gt; • Consider collection of bloods for full blood count and blood group and hold</td>
</tr>
<tr>
<td><strong>Fetal surveillance</strong></td>
<td>• Recommend continuous electronic fetal monitoring (CEFM) during labour  &lt;br&gt; • An abnormal fetal heart rate is the most consistent finding in uterine rupture  &lt;br&gt; • Refer to Queensland Clinical Guideline: Intrapartum fetal surveillance</td>
</tr>
<tr>
<td><strong>Labour</strong></td>
<td>• Provide one-to-one midwifery care and continuous support  &lt;br&gt;   o Associated with improved birth outcomes  &lt;br&gt;   o Enables prompt identification and management of uterine scar dehiscence or rupture  &lt;br&gt; • Once in active labour, recommend initial vaginal examination, and then fourth hourly/as indicated  &lt;br&gt;   o If delay in progress of labour at any stage, consult with experienced obstetric and midwifery staff  &lt;br&gt; • Observe for signs and symptoms of uterine dehiscence or rupture  &lt;br&gt;   o Refer to Section 6.2 Uterine rupture  &lt;br&gt;   o Refer to the National Consensus Statement: Essential elements for recognising and responding to clinical deterioration  &lt;br&gt; • Increased risk of obstetric anal sphincter injury for women having a VBAC  &lt;br&gt;   o Refer to Queensland Clinical Guideline: Perineal care  &lt;br&gt; • Manage third stage as per local policy  &lt;br&gt;   o No special requirements for VBAC</td>
</tr>
</tbody>
</table>
6.1 Pain relief
No evidence has been identified that precludes women undergoing a planned VBAC from having access to the full range of pain relief options.88

Table 14. Pain relief

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| Water immersion and birth   | • No known contraindications to water immersion for planned VBAC88  
• Support women requesting water immersion planning a VBAC  
  o Recommend CEFM suitable for water immersion (telemetry)  
• Refer to local policy on water immersion for further guidance  
• Refer to Queensland Clinical Guideline: Normal birth91 for more information on water immersion and birth |
| Epidural                    | • In the years 2016 to 2018 (inclusive) in Queensland, for both preterm and term pregnancies in women having their next birth after one or more CS16:  
  o 28.7% of women having a VBAC had an epidural in labour  
• Considered safe for women attempting a VBAC10,11,92  
  o If woman with epidural in situ has an increasing requirement for pain relief in labour, maintain awareness of possibility of impending uterine rupture1  
    ▪ This sign is neither sensitive nor specific10  
    ▪ Acute onset of scar pain or tenderness is seldom masked by an epidural10  
  o Abnormal CTG is most persistent finding in uterine rupture1  
    ▪ Refer to Section 6.2 Uterine rupture  
• Epidural use during attempted VBAC (compared with no epidural) is associated with:  
  o Higher rates of VBAC92  
  o Higher rates of instrumental birth92  
  o Similar rates of uterine rupture92  
• Refer to Queensland Clinical Guideline: Epidural in labour93 |
6.2 Uterine rupture

Table 15. Uterine rupture

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **Context** | • May occur at any stage of labour and can occur during pregnancy or postpartum  
• There are no reliable clinical markers or models that predict uterine rupture or its timing  
• Risk of uterine rupture with a previous CS regardless of mode of birth is 0.3%4  
  o Risk for a planned VBAC following one prior CS is approximately 0.5%1,10  
  o Risk for an ERCS is approximately 0.03%4  
• Previous vaginal birth reduces the risk of uterine rupture94,95 |
| **Scar dehiscence versus uterine rupture** | • Uterine rupture refers to a disruption of the uterine muscle extending to and involving the uterine serosa or disruption of the uterine muscle with extension into the bladder or broad ligament  
• Uterine scar dehiscence is a disruption of the uterine muscle with intact uterine serosa  
  o Scar dehiscence may be asymptomatic in up to 48% of women96 |
| **Signs and symptoms** | • The most common sign is prolonged, persistent and profound fetal bradycardia97 which occurs in approximately 80% of cases98  
• Typically non-specific, some are rare and some may be associated with other obstetric circumstances, making diagnosis difficult97  
• Assess in the context of the woman’s individual circumstances  
• Classic triad of complete uterine rupture (pain, vaginal bleeding, fetal heart rate abnormalities) may present in less than 10% of cases96  
• Other non-specific signs and symptoms may include:  
  o Abnormal CTG1,10,97,98  
  o Abdominal pain, especially if persisting between contractions1  
  o Acute onset of scar tenderness1,97  
  o Abnormal progress in labour, prolonged first or second stage of labour97  
  o Abnormal vaginal bleeding1,97,98  
  o Cessation of previously efficient uterine activity97,98  
  o Loss of intrauterine pressure or cessation of contractions98  
  o Haematuria1  
  o Loss of station of the presenting part1,97  
  o Easier abdominal palpation of fetal parts10  
  o Chest pain or shoulder tip pain (particularly in the absence of vaginal bleeding)  
  o Maternal tachycardia, hypotension or shock98 |
| **Clinical significance** | • Consequences of uterine rupture are dependent on time between rupture and birth of baby98  
• If uterine rupture occurs:  
  o Reported rates of hysterectomy range from 14–33%4  
  o Pooled risk of perinatal death of 6.2%4  
  o Reported rates of perinatal death in term babies range from 0–2.8%4  
  o No maternal deaths have been reported4 |
| **Uterine thickness** | • There is a relationship between lower uterine thickness and risk of uterine rupture10  
  o No known cut-off between safe and unsafe VBAC10  
  o Ultrasonographic measurement does not currently provide a clear prediction of uterine rupture so its usefulness is limited10,11 |
| **Recommendation** | • Category 1 CS is required for suspected uterine rupture as there is an urgent threat to the woman and her baby20  
• Expeditious laparotomy and neonatal resuscitation are essential to reduce associated morbidity and mortality1  
• Ultrasonographic measurements of uterine thickness and pelvimetry are not yet useful for counselling women on their risk of uterine rupture during an attempted VBAC10 |
7 Special circumstances

Table 16. VBAC in special clinical situations

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple pregnancy</td>
<td>- Not considered a contraindication to VBAC&lt;sup&gt;10&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Various studies have reported similar rates of VBAC in twin pregnancies to those of singleton pregnancies&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Macrosomia</td>
<td>- Multiple studies consistently report lower VBAC rates in women with neonatal birth weights greater than 4 kg&lt;sup&gt;10&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Birthweight of 4 kg or more and a history of previous CS is associated with an increased risk of&lt;sup&gt;1,99&lt;/sup&gt;:</td>
</tr>
<tr>
<td></td>
<td>- Uterine rupture</td>
</tr>
<tr>
<td></td>
<td>- Caesarean birth</td>
</tr>
<tr>
<td></td>
<td>- Shoulder dystocia</td>
</tr>
<tr>
<td></td>
<td>- Third and fourth degree perineal tears</td>
</tr>
<tr>
<td></td>
<td>- If suspected fetal macrosomia, consider ultrasound scan at 36 weeks</td>
</tr>
<tr>
<td>Breech</td>
<td>- External cephalic version (ECV) is not contraindicated for women with history of previous CS&lt;sup&gt;25&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Similar rates of successful ECV for women with and without a history of CS&lt;sup&gt;25&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Breech presentation is not an absolute contraindication for VBAC&lt;sup&gt;10&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Advise women there is insufficient evidence to assess risks of VBAC with breech presentation</td>
</tr>
<tr>
<td>Preterm</td>
<td>- Similar VBAC rates for preterm and term pregnancies&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Rates of uterine rupture and dehiscence are lower in preterm compared to term VBAC&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Increased maternal age</td>
<td>- Maternal age of 40 years or more is an independent risk factor for stillbirth and caesarean birth&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Evidence does not provide enough information to determine a maternal age threshold over which an ERCS is preferable to VBAC&lt;sup&gt;12&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Carefully consider the timing of birth in women aged 40 years or above who plan for a VBAC&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Insufficient evidence to recommend optimum timing for birth&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Intraterine fetal death</td>
<td>- Individualise care and management according to unique circumstances</td>
</tr>
<tr>
<td></td>
<td>- Consult with experienced obstetrician to discuss risks and benefits of induction with woman who has an intrauterine fetal death and previous CS&lt;sup&gt;100&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- High VBAC rates reported (87%)&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- If planned VBAC, monitor and palpate contractions closely in labour</td>
</tr>
<tr>
<td></td>
<td>- Avoid uterine hypertonus and tachysystole, and observe closely for signs of uterine rupture</td>
</tr>
<tr>
<td></td>
<td>- If previous classical CS, recommend repeat CS&lt;sup&gt;101&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>- Refer to Queensland Clinical Guideline: Stillbirth care&lt;sup&gt;102&lt;/sup&gt; for further guidance</td>
</tr>
<tr>
<td>Termination of pregnancy</td>
<td>- Refer to Queensland Clinical Guideline: Termination of pregnancy&lt;sup&gt;3&lt;/sup&gt; for methods of termination in women at risk of uterine rupture</td>
</tr>
</tbody>
</table>

8 Postpartum care

Provide standard postnatal care according to method of birth and clinical circumstances. Offer women the opportunity to discuss the implications for future pregnancies of their birth experience. Consider and assess emotional wellbeing and facilitate corresponding support where indicated. Refer to Table 7. Clinical standards.
References


### Appendix A: Example VBAC counselling checklist

An example checklist which can be used by clinicians when counselling women about birth after previous CS.

#### Contraindications for VBAC

<table>
<thead>
<tr>
<th>Contraindications</th>
<th>Tick when discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous uterine rupture; history of classical caesarean section; contraindications to vaginal birth which apply regardless of history of caesarean (e.g. placenta praevia)</td>
<td>□</td>
</tr>
<tr>
<td>Complex caesarean scar (e.g. inverted T or J), or history of multiple caesarean sections</td>
<td>□</td>
</tr>
</tbody>
</table>

#### Likelihood of VBAC

<table>
<thead>
<tr>
<th>Likelihood of VBAC</th>
<th>VBAC rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>One previous caesarean section, no previous vaginal birth</td>
<td>72–75%*</td>
</tr>
<tr>
<td>One previous caesarean section, at least one previous vaginal birth</td>
<td>85–90%*</td>
</tr>
<tr>
<td>Induced labour, no previous vaginal birth, BMI greater than 30, previous caesarean for dystocia</td>
<td>If all factors present, 40%</td>
</tr>
</tbody>
</table>

#### Maternal risks of planned VBAC and ERCS

<table>
<thead>
<tr>
<th>Risk</th>
<th>Planned VBAC</th>
<th>ERCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uterine rupture*</td>
<td>0.5%</td>
<td>&lt;0.02%</td>
</tr>
<tr>
<td>Serious complications in future pregnancies</td>
<td>Not applicable if VBAC</td>
<td>Increased likelihood of placenta praevia/morbidly adherent placenta</td>
</tr>
<tr>
<td>Maternal mortality</td>
<td>0.004%</td>
<td>0.013%</td>
</tr>
</tbody>
</table>

*If uterine rupture occurs, 14–33% risk of hysterectomy and 6.2% risk of perinatal death*

#### Fetal risks of VBAC and ERCS

<table>
<thead>
<tr>
<th>Risk</th>
<th>Planned VBAC</th>
<th>ERCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antepartum stillbirth beyond 39+0 weeks awaiting labour</td>
<td>0.1%</td>
<td>Not applicable if ERCS at 39 weeks</td>
</tr>
<tr>
<td>Hypoxic ischaemic encephalopathy (HIE)</td>
<td>0.08%</td>
<td>&lt;0.01%</td>
</tr>
<tr>
<td>Perinatal mortality</td>
<td>0.13%</td>
<td>0.05%</td>
</tr>
</tbody>
</table>

#### Intrapartum care recommendations

- Recommended continuous electronic fetal monitoring in labour
- One-on-one midwifery care
- Birth in suitable facility

#### Written information leaflets provided

- VBAC □
- ERCS □
- Other □

### Appendix B: Example management plan checklist

Example plan which can be completed by clinician and woman to document plan for birth and potential circumstances which may arise.

<table>
<thead>
<tr>
<th>Management plan in the event of…</th>
<th>VBAC</th>
<th>Emergency CS</th>
<th>Depends on situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterm labour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spontaneous labour before ERCS date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No spontaneous labour by 41 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details of induction of labour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of oxytocin in labour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERCS booking details</td>
<td></td>
<td></td>
<td></td>
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<td>Additional comments</td>
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- Induction of labour
  Provide details below in induction of labour row
  - ERCS
  Provide details:
  - Expectant management
  Provide details:
  - Details of induction of labour

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