

Maternity - Supporting Women in their Next Birth After Caesarean Section (NBAC)

Summary This Guideline provides direction to NSW maternity services to support staff in providing consistent evidence-based information to support women making an informed choice about their next birth after a caesarean section (NBAC).

Document type Guideline

Document number GL2014_004

Publication date 14 March 2014

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Review date 31 August 2025

Policy manual Patient Matters

File number H13/101897

Previous reference N/A

Status Review

Functional group Clinical/Patient Services - Maternity

Applies to Local Health Districts, Specialty Network Governed Statutory Health Corporations, Public Health Units, Public Hospitals

Distributed to Public Health System, Divisions of General Practice, NSW Ambulance Service, Ministry of Health, Private Hospitals and Day Procedure Centres, Tertiary Education Institutes

Audience All clinicians in maternity services.

MATERNITY – SUPPORTING WOMEN IN THEIR NEXT BIRTH AFTER CAESAREAN SECTION (NBAC)

PURPOSE

The *Guideline: Maternity - Supporting Women in their Next Birth After Caesarean Section (NBAC)* provides direction to the NSW maternity services staff to provide consistent, evidence-based information to women. This information will support pregnant women in their decision making about their next birth after caesarean section.

This Guideline should be read in conjunction with [PD2010_045 Maternity - Towards Normal Birth in NSW^{\(1\)}](#), which aims to increase the vaginal birth rate in NSW.

KEY PRINCIPLES

This Guideline applies to all NSW Public Health Organisations (PHOs) providing maternity services. It guides all NSW PHOs to support women in their decision making around their NBAC which includes ensuring that:

- Women are provided with access to vaginal birth after caesarean section (VBAC) services
- Women are provided with consistent evidence-based information regarding NBAC
- Clinicians have access to consistent evidence-based information in order to support women to make informed choices about birth after a previous caesarean section.

IMPLEMENTATION

The Chief Executives of NSW PHOs are responsible for the implementation of this Guideline within their services/facilities to ensure that local VBAC protocols or operating procedures are in place, aligned and consistent with the Guideline.

All maternity services staff should be aware of the Guideline and actively participate in its implementation to support pregnant women who have had a previous caesarean section in their decision making around their NBAC.

REVISION HISTORY

Version	Approved by	Amendment notes
February 2014 (GL2014_004)	Deputy Director- General Population Health	New Guideline

ATTACHMENTS

1. Maternity – Supporting Women in their Next Birth After Caesarean Section (NBAC) - Guideline

MATERNITY
SUPPORTING WOMEN IN
THEIR NEXT BIRTH AFTER
CAESAREAN SECTION
(NBAC)

NSW Health Guideline

NSW KIDS AND FAMILIES

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GL2014_004

State Health Publication No: (NKF) 140053
ISBN 978 1 74187 975 9

March 2014

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1 BACKGROUND

1.1 Purpose

This Guideline provides direction to NSW maternity services staff regarding strategies to provide consistent evidence-based information to women. This information will support pregnant women in their decision making about their next birth after a caesarean section (NBAC). The NBAC may be either a planned vaginal birth after previous caesarean section (VBAC) or Elective Repeat Caesarean Section (ERCS).

1.2 Background

For over a century, access to and increased safety of caesarean sections has played an important part in improving outcomes for mothers and babies who experience this intervention. Whilst there are clinical circumstances where both mothers and babies benefit from birth by caesarean section, the rising caesarean section rate is concerning.

Over the last 30 years a growing number of studies have suggested that:

'Babies born at term by vaginal delivery have significantly different physiology at birth to those born by caesarean section, particularly when there has been no exposure to labour. Some of the effects of caesarean section are short term (e.g. impaired lung function, reduced thermogenic response, and alteration to metabolism, feeding, immune phenotype and blood pressure), but longer term problems are also apparent (e.g. increase in immune-related conditions such as asthma, alteration in metabolism leading to obesity and neurological and stress-related problems). It is suggested that vaginal delivery initiates important physiological trajectories and the absence of this stimulus in caesarean section has implications for adult health'⁽²⁾.

A review of international guidelines, systematic reviews and observational studies report VBAC success rates to be between 63-94%^{(3) (4) (5) (6)}. The likelihood of VBAC success is associated with a number of factors, however previous vaginal birth remains the single best predictor of successful VBAC^{(3) (5)}. Despite this, the number of women in NSW attempting a VBAC has declined significantly during the last 10 years⁽⁷⁾. This has contributed to the increasing rate of ERCS in NSW and overall caesarean section rates both nationally and globally.

The increasing rate of primary caesarean sections has led to an increased proportion of women who have a history of a previous caesarean birth. For these women there are three possible outcomes: a successful VBAC, an attempted VBAC resulting in a caesarean section or an ERCS.

Pregnant women when considering their NBAC need to be assessed and informed of their suitability and the risks and benefits for both VBAC and ERCS^{(3) (4) (5) (6)}.

1.3 About this document

This Guideline should be read in conjunction with [PD2010_045 Maternity - Towards Normal Birth in NSW](#)⁽¹⁾ which aims to increase the vaginal birth rate in NSW. This aim can be achieved, in part, by increasing the number of women who attempt and ultimately achieve a successful VBAC. This Guideline requires that all maternity services/facilities provide or facilitate access to VBAC that is supported by a written local VBAC protocol or operating procedures.

This Guideline underpins Policy Directive 2010_045⁽¹⁾ by providing a framework to ensure:

- All women are provided with access to VBAC services
- Women are provided with consistent evidence-based information regarding VBAC and ERCS
- All clinicians have access to consistent evidence-based information in order to support women to make informed choices about birth after a previous caesarean section.

1.4 Key definitions

Elective Repeat Caesarean Section (ERCS)

A planned caesarean section for a woman who has had one or more prior caesarean sections, whether or not the caesarean section occurred at a scheduled time⁽⁶⁾

Neonatal Respiratory Morbidity

Combined rate of transient tachypnoea of the newborn (TTN) and respiratory distress syndrome (RDS)⁽⁵⁾

Next Birth After Caesarean Section (NBAC)

Refers to a woman's next birth after a previous caesarean section

NBAC 'clinic'

A specified approach for the provision of coordinated, timely and consistent evidence-based advice for women who have had a previous caesarean section

Term Delivery Related Perinatal Death

Intrapartum stillbirths and neonatal deaths, at or beyond 37 completed weeks; excludes antepartum deaths and deaths due to fetal malformation⁽⁵⁾

Term Perinatal Mortality

Combined number of stillbirths and neonatal deaths at or beyond 37 completed weeks, excludes deaths due to fetal malformation⁽⁵⁾

Uterine Dehiscence

Is a disruption of the uterine muscle with intact uterine serosa⁽⁵⁾

Uterine Rupture

Is a disruption of the uterine muscle extending to and involving the uterine serosa⁽⁵⁾

Vaginal Birth After Caesarean Section (VBAC)

Refers to a vaginal birth following one or more previous caesarean sections⁽⁶⁾

1.5 Framework for decision-making

This Guideline is based on the best available evidence. Its application should take into account the individual characteristics, needs, expectations and priorities of women embarking upon a NBAC. It is acknowledged that there is insufficient high level evidence to enable prescriptive policy to be applied to either birth option.

2 TIERED MATERNITY NETWORKS

2.1 Access to VBAC services

Suitable women should be offered access to VBAC through their tiered maternity network⁽¹⁾. Consultation and referral pathways should be in place to facilitate the woman's movement between services⁽⁸⁾. Local Health Districts (LHDs) should ensure that local guidelines for referral and transfer remain current and are in line with NSW Health policy.

Multidisciplinary NBAC 'clinics' are one way of providing focused information to women planning their next birth following a previous caesarean section. NBAC 'clinics' should be offered at Level 4 services and above⁽⁹⁾. VBAC intrapartum services can be offered at Level 3 services and above⁽⁹⁾.

2.2 Characteristics of services capable of providing VBAC

VBAC intrapartum services should be offered at maternity services Level 3 and above. These services should have the capability to provide VBAC care and emergency support including⁶:

- Access to an emergency caesarean^{(3) (4) (5) (6) (10)}
- Continuous intrapartum monitoring^{(4) (5) (10) (11)}
- One-to-one midwifery care during labour⁽¹⁰⁾
- Advanced neonatal resuscitation^{(6) (10)}
- Onsite blood transfusion and cross matching^{(4) (6) (10)}
- Staff experienced in advanced analgesic techniques^{(6) (10)}

Women who live in areas where local hospitals cannot provide timely access to caesarean section should be offered the opportunity for transfer to a facility where this service is available⁽¹⁾.

When a woman is considering birth in a facility where resources for timely caesarean section are not available, it is recommended that health care providers discuss with the woman, the hospital's resources and availability of obstetric, paediatric, anaesthetic, pathology, and operating room staff. Such discussions should be clearly documented in the clinical record^{(12) (13)}. Respect for patient autonomy supports that a woman should be allowed to accept increased levels of risk; however, they should be clearly informed of such potential increases in risk and management alternatives⁽¹⁴⁾. LHDs should have in place local processes to deal with clinical situations where a woman makes choices outside of those recommended in this clinical guideline or beyond the service capability of the individual health facility.

3 CARE IMMEDIATELY FOLLOWING THE PRIMARY CAESAREAN SECTION

All women who have had a primary caesarean section should be offered the opportunity to talk and debrief about their birth experience during the immediate postnatal period^{(1) (5)}. This should preferably be conducted by the medical officer who performed the caesarean section and wherever possible include the midwife who provided care during labour.

The discussion should be recorded in the woman's clinical record and include the:

- Reasons for the caesarean section^{(1) (5)}, and
- Implications for future pregnancies and births^{(1) (5)}.

It is recognised that some women may need the opportunity for further discussion and a midwife is best placed to attend to this care element and refer when necessary. Referral for ongoing counselling and/or support should be offered if required or requested by the woman ^{(1) (5)}.

4 ANTENATAL CARE

4.1 NBAC Care Planning

Multidisciplinary NBAC 'clinics' should be available at all Level 4 maternity services and above ⁽¹⁾. NBAC 'clinics' provide the opportunity to focus on the provision of VBAC and ERCS information.

For facilities where NBAC 'clinics' are not available structured pathways need to be in place to ensure that all women have access to individualised NBAC advice and care planning throughout pregnancy.

4.2 Care provider

Antenatal care should be tailored to the woman's needs and may be provided by a midwife in consultation with a medical officer ^{(10) (15)}. Continuity of carer should be offered where available.

4.3 Discussion and planning the mode of birth

Women with a history of caesarean section should be provided with advice and information regarding their birthing options before the 16th week of pregnancy ⁽¹⁾. Advice should be supported by the provision of written information such as the consumer brochure [Your Next Birth After Caesarean Section](#) (Attachment 1).

The initial preference for mode of birth should be documented before the 16th week of pregnancy in the clinical record. If the full medical record pertaining to previous caesarean section(s) is not immediately available attempts must be made to obtain these prior to the woman's next appointment.

A detailed discussion with the woman regarding her plans for a NBAC should occur early in pregnancy with an experienced clinician, ideally before 24 weeks gestation ^{(5) (6) (10)}. This discussion should include the risks and benefits of VBAC and ERCS as they pertain to each individual woman's circumstances, concerns, priorities and plans for future pregnancies ⁽¹⁰⁾. A provisional plan for birth should be made at this time.

A final decision for mode of birth should ideally be agreed between the woman and a senior obstetric clinician before 36 weeks gestation ^{(5) (10)}.

The above antenatal discussions and the plan for the mode of birth should be documented in the clinical record or in the approved State form [Antenatal Checklist - Supporting Women in their Next Birth After Caesarean Section \(NBAC\)](#) (Attachment 2).

Discussion with women who have experienced a previous caesarean section should include ^{(5) (10)}.

- An opportunity to engage in a balanced discussion of the uncertain risks particular to the woman's individual circumstances
- An explanation of the reason(s) if VBAC is not advised
- Provision of written information
- Provision of additional information if there is:
 - more than one previous caesarean section
 - inter-pregnancy interval less than 18 months ⁽⁶⁾
 - multiple gestation

- suspected fetal macrosomia.
- The use of interpreters for women from culturally and linguistically diverse groups if required, or Aboriginal Liaison Officers for Aboriginal and Torres Strait Islander women
- The explanation that ERCS may increase the risk of serious complications in future pregnancies
- Documentation in the clinical record of:
 - a plan of care and the intention for VBAC
 - a plan for the event of labour starting prior to the expected date of planned ERCS
 - written confirmation/consent for VBAC (if requested by individual clinicians)
 - antenatal discussion including resolution of any previous birth related issues.

Clear documentation of antenatal discussion is important and should include ⁽¹⁰⁾:

- Woman's suitability for VBAC
- Information about available birth options, preparation for birth, and intrapartum care for VBAC
- Information regarding the risks and benefits of each birth option (including a discussion about future pregnancies) ⁽⁵⁾
- A balanced discussion of the uncertainties
- Decision aids or other information provided
- The woman's decision regarding preferred mode of birth
- The woman's acknowledgement of the discussion about birth options
- If an interpreter facilitated the discussion.

In the event the woman does not choose to follow the advice offered, clear and detailed records of all conversations must be made in the clinical record. Documentation of the management plan should be included in the woman's clinical record, ⁽¹⁰⁾ which could include the woman's hand held record in addition to the hospital medical record.

4.4 Contraindications and considerations for a planned VBAC

Careful explanation should be given to women who have any of the following circumstances which are generally considered to be contraindications for a planned VBAC:

- Maternal or fetal reasons to avoid vaginal birth in current pregnancy ⁽¹⁰⁾
- Maternal request for ERCS ⁽¹⁰⁾
- Previous classical, low vertical, or inverted T or J uterine incision ^{(5) (6) (10)}
- Previous hysterotomy ⁽¹⁰⁾
- Previous uterine rupture ⁽⁵⁾
- Three or more previous caesarean births ^{(5)†}.

Individual consideration and discussion with an obstetrician should occur in the following circumstances as the risk of rupture is uncertain ⁽⁵⁾:

- Previous myomectomy where the uterine cavity has been opened
- Complex uterine surgery
- Inter-pregnancy interval less than 18 months ⁽⁶⁾.

Women with a history of two uncomplicated low transverse caesarean sections, in an otherwise uncomplicated pregnancy at term with no contraindications for vaginal birth and who have been fully informed by a consultant obstetrician, may be considered suitable for a planned VBAC in selected facilities ⁽⁵⁾.

[†] RANZCOG does not absolutely exclude women with more than one previous caesarean section from consideration of planned VBAC. RANZCOG states that with respect to planned vaginal birth after caesarean section that the decision is one for the woman to make in consultation with her carer who has an obligation to provide her with all relevant information.⁴

4.4.1 Risks and benefits of planned VBAC and planned ERCS

VBAC and ERCS have differing risks and benefits for women and their babies (Appendix A). It should be noted that there is generally insufficient high level evidence in regard to the risks and benefits of planned VBAC or planned ERCS. However, there is sufficient good level evidence in relation to the following:

- Maternal mortality is significantly higher with planned ERCS
- With respect to perinatal mortality, one systematic review did not find a statistically significant difference in perinatal mortality among infants born to women who planned an ERCS at term compared with infants born at term to women who planned a VBAC. The absolute risk of birth-related perinatal death associated with VBAC are comparable to the risks for nulliparous women⁽⁵⁾
- For uterine rupture, a review of the international and national literature provides a range of rates from 2 per 1,000⁽¹⁶⁾ to 7 per 1,000 for planned VBAC^{(3) (4) (5) (16) (17)}. For the purpose of this Guideline a rate of 5 per 1,000 (1:200) is recommended to be used in discussions
- For an individual woman, increasing numbers of caesarean sections are associated with an increased risk of placenta praevia and placenta accreta.

The quality of evidence relating to blood transfusion at term, hysterectomy, infection, length of hospital stay, neonatal bag and mask ventilation, and transient tachypnoea of the newborn is poor.

4.4.2 Benefits of successful VBAC

Whilst the majority of the evidence focuses on planned VBAC and planned ERCS there is some data on the benefits of VBAC success. The National Institute of Health (NIH) 2010 consensus statement identifies that women having a successful VBAC have:

- Shorter stays in hospital⁽³⁾
- Lower rates of deep vein thrombosis⁽³⁾ and
- Enhanced mother-infant bonding, including the long term wellbeing of the infant⁽³⁾.

4.4.3 Likelihood of VBAC success

A review of international guidelines, systematic reviews and observational studies report VBAC success rates to be between 63-94%^{(3) (4) (5) (6)}. The likelihood of VBAC success is associated with a number of factors, however previous vaginal birth remains the single best predictor of successful VBAC^{(3) (5)}.

A number of other factors have been identified as increasing the likelihood of VBAC success:

- Younger maternal age^{(3) (5)}
- Caucasian race^{(3) (5)}
- BMI <30^{(3) (5)}
- No medical illnesses including pre-eclampsia⁽³⁾
- Prior vaginal birth^{(3) (4) (5)}
- Prior caesarean indication not related to arrest of labour^{(3) (5)}
- Spontaneous onset of labour at <40 weeks gestation^{(3) (5)}
- Cervical dilation > 4cm on admission^{(3) (5)}
- Baby <4kg^{(3) (5)}.

4.5 Timing of ERCS

The risk of respiratory morbidity is increased in babies born by caesarean section before labour, but this risk decreases after 39 completed weeks. Therefore, elective or pre-labour caesarean section must not be routinely carried out before 39 completed weeks⁽¹⁸⁾.

4.6 Management of post-dates pregnancy in planned VBAC

The risk of uterine rupture in women at term who have their labour induced is higher (1,500 per 100,000) than the risk of uterine rupture if labour starts spontaneously (800 per 100,000)^{(3) (5)}. The likelihood of caesarean section with induction of labour and/or augmentation is increased by 1.5 compared with spontaneous labours⁽⁵⁾. Induction of labour should only be undertaken with caution, with the decision led by the obstetrician in consultation with the woman^{(5) (6)}.

The risk of uterine rupture increases in women who are induced at more than 40 weeks (3,200 per 100,000 at more than 40 weeks versus 1,500 per 100,000 at 37 to 40 weeks)⁽³⁾.

4.6.1 Methods of cervical ripening

Due to the higher risk of uterine rupture and associated risk of perinatal death, prostaglandin induction is not recommended in women planning a VBAC^{(3) (5) (6) (19)}. Whilst good evidence is lacking, mechanical methods of cervical ripening (e.g. Foleys catheter or double balloon cervical ripening catheters) might be preferred⁽⁶⁾.

4.6.2 Use of oxytocics

Oxytocin infusions to induce labour whilst not contraindicated should be used with caution^{(3) (6) (19)}.

5 INTRAPARTUM CARE FOR PLANNED VBAC

Key components of high quality intrapartum care include:

- Good communication, support and encouragement between the woman and all health care providers
- Close surveillance of the wellbeing of the woman and her unborn baby
- Monitoring the progress of labour
- Early recognition of complications and timely intervention if complications develop.

It is important to remember that the way in which care is given, and the environment in which it is provided, has a significant impact on the woman and her partner's experience of childbirth and her subsequent emotional wellbeing. Therefore, staff should strive to provide compassionate care in line with the overall philosophy of maternity care in NSW.

5.1 Fetal Monitoring

The sudden onset of a pathological fetal heart rate pattern is present in approximately 55 - 87% of cases of uterine rupture⁽⁵⁾. Therefore, continuous electronic fetal heart rate (FHR) monitoring is recommended and should be conducted in accordance with PD2010_040 *Maternity – Fetal Heart Rate Monitoring*⁽¹¹⁾. The use of telemetry devices, where available, may be beneficial.

5.2 Maternal Care and Monitoring

5.2.1 One-to-one midwifery care

One-to-one midwifery care in labour in consultation with the medical officer should be provided for all women attempting a VBAC^{(1) (20)}. Preferably this should be a midwife known to the woman (i.e. continuity of carer). The responsible obstetrician or general practitioner should be informed when the woman is admitted in labour and again at the beginning of second stage^{(6) (10)}.

5.2.2 Intravenous access and maternal blood sampling

Large bore intravenous access should be established at the onset of labour^{(6) (10)}.

Blood samples should be collected during cannulation for full blood count and group and hold (or cross-match where clinically indicated)^{(6) (10)}.

5.2.3 Analgesia

Epidural anaesthesia can be provided upon maternal request, in the absence of other contraindications and where available^{(5) (6) (10)}. Water immersion does not appear to be contraindicated for women undertaking VBAC.

5.2.4 Observations

Maternal observation should include at a minimum⁽²¹⁾:

- Assessment of contractions for a minimum of 10 minutes out of every 30 minutes
- Pulse hourly
- Blood pressure 4 hourly
- Temperature 4 hourly
- Observation for vaginal blood loss and scar tenderness
- Vaginal examination with consent on admission and then 4 hourly preferably by the same clinician.

Monitoring the progress of labour is important and will vary from woman to woman. Progress should be determined by assessing cervical dilatation and descent of the fetal head. Slow progress in labour may indicate an increased risk of uterine rupture⁽¹⁰⁾.

- Plan for birth to occur within 12 hours of onset of established labour⁽¹⁰⁾
- Anticipate 1cm dilatation every 1-1½ hours after achieving 4cm dilatation⁽¹⁰⁾.

Second stage management⁽¹⁰⁾:

- Allow up to 1 hour passive descent in second stage
- Allow women with no prior vaginal birth 1 hour of active pushing
- Allow women with a previous vaginal birth 30 minutes of active pushing
- Low cavity vacuum and/or forceps can be safely considered, however mid cavity should be performed with extreme caution by, or under the direct supervision of an obstetrician/GP obstetrician.

5.2.5 Augmentation

The use of amniotomy and/or oxytocin to augment labour if indicated must first be discussed with the woman and obstetrician⁽⁶⁾, and should be used with caution⁽¹⁹⁾.

5.2.6 Signs of uterine dehiscence / rupture

There is no single clinical feature that is indicative of uterine dehiscence/rupture. Signs associated with uterine dehiscence may be less acute or absent. The presence of any of the following peripartum signs should raise the concern of the possibility of uterine rupture ^{(5) (10)}:

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

Note: Rupture of the uterus may not manifest any of the clinical features outlined above until critical blood loss has occurred.

6 POSTNATAL CARE FOLLOWING NBAC

It is important that the woman is fully involved in planning the timing and content of each postnatal care contact so that the postnatal care provided is flexible and tailored to meet her and her baby's needs ⁽²²⁾.

Good communication between and by all health care providers and the woman and her family is essential and should be supported by the provision of evidence-based information offered in a form that is tailored to the needs of the individual woman ⁽²²⁾.

All women who have had a NBAC should be offered the opportunity to discuss and debrief about their birth experience during the immediate postnatal period ^{(1) (5)}. This should preferably be conducted by the clinician involved in the birth at a time when the woman has sufficiently recovered from the birth. The same principles outlined in section 3 for discussion and /or support should apply following NBAC.

Prior to discharge, it is recommended that if the woman has had a caesarean section she should be provided with a post-operative information letter (Attachment 3) for her information and use in subsequent pregnancies.

7 CLINICAL AUDIT

Birth after caesarean section data should be collected to provide accurate information on the number of women: choosing VBAC, attempting VBAC, successfully achieving VBAC and those opting for an ERCS. This data should be subject to regular multi-disciplinary clinical audit and review in accordance with PD2010_045 ⁽¹⁾.

Suggested auditable standards could include:

- Documentation of discussion of risks and benefits of VBAC and ERCS
- Documentation of consultant involvement in decision to induce or augment labour.

8 APPENDIX A RISKS AND BENEFITS FOR ERCS AND PLANNED VBAC

Summary of risks and benefits findings comparing ERCS with planned VBAC (maternal and neonatal outcomes) Source: NICE Guidelines 2011 (4) and NIH Guidelines 2010 (3)

Number of studies	Number of women/neonates		Effect		Body of Evidence Assessment ‡
	Planned ERCS	Planned vaginal birth**	Relative (95% CI)	Absolute (95% CI)	
Maternal mortality (term)					
4 studies ⁽²³⁾	17/225,239 (7.5 per 100,000)	3/156,690 (1.9 per100,000)	RR 3.94 (1.20 to 12.5)	Absolute risk difference: 5.6 more deaths per 100,000 (from 1.2 more to 10.4 more)	Good
Perinatal mortality					
“One systematic review did not find a statistically significant difference in perinatal mortality among infants born to women who planned a ERCS at term compared with infants born at term to women who planned a VBAC. The absolute risk of birth-related perinatal death associated with VBAC are comparable to the risks for nulliparous women” ⁽⁵⁾ .					
Uterine Rupture (term)					
A review of the international and national literature provides a range of rates for uterine rupture from 2 per 1,000 ⁽¹⁶⁾ to 7 per 1,000 ^{(3) (4) (5) (16) (17)} . For the purpose of these Guidelines a rate of 5 per 1,000 (1: 200) is recommended to be used in discussion.					
Blood transfusion (term)					
4 studies ⁽²³⁾	607/227,960 (2.6 per 1000)	547/156,690 (3.5 per 1000)	RR 0.76 (0.67 to 0.85)a	Absolute risk difference: 0.9 fewer per 1000 Adjusted risk difference: 1.4 fewer per 1000 (from 0.7 fewer to 2.2 fewer)	Poor
Hysterectomy (term)					
3 studies ⁽²³⁾	248/227,479 (1.09 per 1000)	174/155,763 (1.11 per 1000)	RR 0.97 (0.80 to 1.18)a	Absolute risk difference: 0.02 fewer per 1000 (from 0.24 fewer to 0.18 more)	Poor
Infection: endometritis, chorioamnionitis, wound and other postpartum infections (any gestational age)					
10 studies ⁽²³⁾	32 per 1000	46 per 1000	Not calculable (NC)	Absolute risk difference: 14 fewer per 1000	Poor

† NHMRC additional levels of evidence and grades for recommendations for developers of guidelines.
https://www.nhmrc.gov.au/_files_nhmrc/file/guidelines/developers/nhmrc_levels_grades_evidence_120423.pdf

Number of studies	Number of women/neonates		Effect		Body of Evidence Assessment ‡
	Planned ERCS	Planned vaginal birth**	Relative (95% CI)	Absolute (95% CI)	
Length of hospital stay (any gestational age)					
8 studies ⁽²³⁾	Mean 3.92 days	Mean 2.55 days	Not calculable (NC)	Mean Difference 1.37 higher	Poor
Placenta accreta*					
	319/100,000 (1 prior CS)	Background risk ~40/100,000			
	570/100,000 (2 prior CS)				
	2400/100,000 (3+ prior CS)				
Placenta praevia *					
	900/100,000 (1 prior CS)	Background risk ~500/100,000			
	1700/100,000 (2 prior CS)				
	3000/100,000 (3+ prior CS)				
Bag and mask ventilation (term)					
3 studies ⁽²³⁾	62/976 (6.3%)	183/1134 (16.1%)	RR 0.39 (0.30 to 0.52)a	Absolute risk difference: 98 fewer per 1000 (Calculated risk difference: 25 fewer per 1000 [from 7.7 fewer to 50 fewer])	Poor
Transient Tachypnoea (term)					
3 studies ⁽²³⁾	190/1476 (12.9%)	427/3451 (12.4%)	RR 1.04 (0.88 to 1.21)a	Absolute risk difference: 5 more per 1000 (Calculated risk difference: 8.3 more per 1000 [from 33 fewer to 17 more])	Poor

**NB: Planned VBAC will include women experiencing an emergency caesarean section

† NHMRC additional levels of evidence and grades for recommendations for developers of guidelines.
https://www.nhmrc.gov.au/_files_nhmrc/file/guidelines/developers/nhmrc_levels_grades_evidence_120423.pdf

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10 LIST OF ATTACHMENTS

Attachment 1: Consumer Brochure - Your Next Birth After Caesarean section
Available on the next two pages is a printable version of the Consumer Brochure.

Attachment 2: Antenatal Checklist - Supporting women in their Next Birth After Caesarean Section (NBAC)

Attachment 3: Post Operative Information Letter for women following Caesarean section

If I choose a VBAC what will happen in my labour?

Because of the small risk of the previous scar opening during labour, women having a VBAC are closely monitored once labour is established (usually when you are having regular contractions about every 5 minutes and your cervix is about 4cm dilated).

When you arrive at the hospital in labour you will probably have a drip placed in the back of your hand. It is recommended that your baby's heart beat is monitored electronically throughout labour.

The midwife and doctor will regularly assess your progress in labour by abdominal palpation (to assess strength of contractions and monitor baby's position) and vaginal examination (to assess how your cervix is dilating). If your labour progresses slowly it may be possible to use Syntocinon (a hormone drip) to help your contractions. This will be done with care due to the scar from your previous caesarean section.

If the labour does not progress or if the baby shows signs of distress you will be advised to have an emergency caesarean section.



What are my chances of VBAC success?

A number of factors impact on the likelihood of VBAC success. The reason for your previous caesarean section will be taken into consideration when you discuss your options with your doctor and/or midwife, however, national and international research shows that the majority (63-94%) of women who attempt a VBAC are successful.

A VBAC is more likely to be successful if:

- You have previously given birth vaginally
- This pregnancy has been straightforward
- You go into labour spontaneously in this pregnancy
- Have a Body Mass Index (BMI) less than 30
- Your previous caesarean section was for reasons such as a breech presentation, placenta praevia or fetal distress.

Frequently asked questions

Q. Can I have my labour induced if I have had a previous caesarean section?

The risk of the scar opening is increased if labour is induced. Therefore, induction of labour should only be considered on an individual basis and with recommendation and support of an obstetrician.

Q. Can I have an epidural in labour?

Whilst there are advantages to staying upright and moving around in labour, there are no contraindications to having an epidural.

For further information talk to your midwife or obstetrician.

This information leaflet has been written by an Expert Advisory Group of NSW Kids and Families.

Your Next Birth After Caesarean section

INFORMATION ABOUT YOUR BIRTH OPTIONS



NSW KIDS
+ FAMILIES

Health

Options for your Next Birth After Caesarean section (NBAC)

If you have had one or more caesarean sections, you may be thinking about how to give birth next time. Most women who have had a caesarean section are able to have a Vaginal Birth After Caesarean section (VBAC). Whether you choose to have a VBAC or a caesarean section in a future pregnancy, either option is safe with different benefits and risks. Overall, both are safe options for most women with very small risks.

This information brochure has been designed to provide you with consistent information based on current research and evidence to assist you in deciding about your next type of birth. The information will support the discussions you will have with your midwife and doctor.

When VBAC is not recommended

VBAC is not recommended if you have had:

- A previous complicated caesarean section such as a classical caesarean section (a caesarean section through the upper part of the uterus)
- A previous hysterotomy (an incision through the muscle of the uterus)
- A previous uterine rupture (the uterus tears along your previous caesarean section scar)
- Three or more previous caesarean sections
- Some types of surgery on your uterus, however, a VBAC may still be possible following a discussion with your doctor
- A short duration between pregnancies (less than 18 months).

Vaginal Birth After Caesarean section (VBAC)

Most women who have had a previous lower segment caesarean section can safely give birth vaginally in their next pregnancy. This is called a Vaginal Birth After Caesarean section or VBAC.

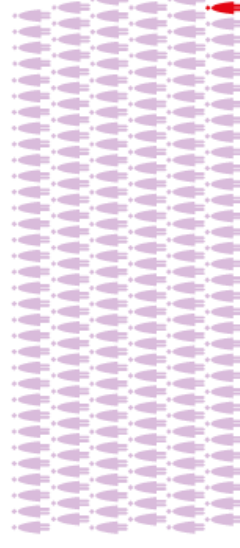
The risk of serious harm to your baby is the same risk as having your first baby and is very small (about 2 for every 1000 women attempting a VBAC).

Benefits of a successful VBAC include:

- A greater chance of an uncomplicated birth in future pregnancies
- A shorter recovery time and hospital stay
- Reduced risk of blood clots (deep vein thrombosis)
- Enhanced mother-infant bonding and long term wellbeing of your baby.

Disadvantages of VBAC include:

- An emergency caesarean section if labour slows or if the baby becomes stressed
- A slight increase in the need for a blood transfusion postnatally if you need an emergency caesarean section.
- A weakening or separation (referred to as rupture) of the previous scar. Although rare, if the scar ruptures it can have serious consequences for you and your baby. The chance of your scar rupturing is small (about 1 for every 200 women attempting a VBAC).



Elective Repeat Caesarean Section (ERCS)

If you choose to have an ERCS, and there are no other problems, this will be arranged for you after your 39th week of pregnancy.

Benefits of ERCS include:

- There is virtually no risk of your previous scar rupturing
- A slight reduction in the need for blood transfusion postnatally.

Disadvantages of ERCS include:

- A longer more complicated operation due to scar tissue from your previous caesarean section
- An increased risk of infection postnatally
- A longer recovery time and stay in hospital
- Increased chance of developing blood clots (deep vein thrombosis)
- Breathing problems are more common in babies born by elective caesarean section
- Increased risk of problems in future pregnancies, for example placenta praevia (placenta close to or overlying the cervix).



10.2 Attachment 2: Antenatal Checklist - Supporting Women in their Next Birth After Caesarean Section (NBAC)



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Holes Punched as per AS2828.1: 2012

BINDING MARGIN - NO WRITING

111013

		FAMILY NAME		MRN
		GIVEN NAME		<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
Facility:		D.O.B. ____/____/____		M.O.
		ADDRESS		
ANTENATAL CHECKLIST – SUPPORTING WOMEN IN THEIR NEXT BIRTH AFTER CAESAREAN SECTION (NBAC)		LOCATION / WARD		
		COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		
Booking Visit <16 weeks Date: ____/____/____ Gestation:	Discussion points	Yes	No	Comment:
	Options for VBAC vs. ERCS discussed & documented			
	Risks and benefits of VBAC discussed			
	Risks and benefits of ERCS discussed			
	NBAC Consumer Brochure given, discussed & documented			
	Operative notes and medical record requested for next NBAC appointment – including notes from other hospitals where possible			
	Woman's initial preference for birth (please circle)	Planned VBAC	ERCS	Unsure
	Signature: _____ Name: _____ Designation: _____			
Antenatal Visit <24 weeks <i>(to include review of previous medical records)</i> Date: ____/____/____ Gestation:	How many months between the date of previous caesarean and the estimated date of birth for this pregnancy?			
	Discussion regarding options for birth:	Yes	No	Comment:
	Maternal or fetal reasons to avoid VBAC in current pregnancy			
	Maternal request for ERCS			
	Previous classical, low vertical, or inverted T or J incision			
	Previous hysterotomy			
	Previous uterine rupture			
	3 or more previous C/S			
	Previous myomectomy - where the uterine cavity has been opened			
	Complex uterine surgery			
	Motivation, preferences and priorities for either option			
	Woman's attitude/opinion regarding the risk of each option			
	Plans for future pregnancies and discuss risk for ERCS			
	Woman's preference for birth following discussion (please circle)	Planned VBAC	ERCS	Unsure (please document follow up plan on next page)
	Signature: _____ Name: _____ Designation: _____			

ANTENATAL CHECKLIST – SUPPORTING WOMEN IN THEIR NEXT BIRTH AFTER CAESAREAN SECTION (NBAC)

SMR060615

NO WRITING

Page 1 of 2

Facility:

ANTENATAL CHECKLIST – SUPPORTING WOMEN IN THEIR NEXT BIRTH AFTER CAESAREAN SECTION (NBAC)

FAMILY NAME

MRN

GIVEN NAME

☐ MALE ☐ FEMALE

D.O.B. ____/____/____

M.O.

ADDRESS

LOCATION / WARD

COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

Follow up plan for woman unsure of birth preference

Please document follow up plan including concerns or requests if the woman is unsure of her birth preference:

Signature: _____ Name: _____ Designation: _____

Antenatal Visit
36 weeks

Date: ____/____/____

Gestation:

If planned VBAC:

Yes

No

Comment:

Woman aware of local guidelines for VBAC (cannula/CTG/ regular VE for progress etc)

Stretch and sweep offered weekly from 38 weeks

IOL limitations and risks discussed

Plans for optimising success discussed: (e.g. positive attitude/ spontaneous labour/ continuous support in labour etc)

Appointment made for 41 weeks with senior obstetrician for Bishop score and discussion of post-date IOL options

If ERCS:

Yes

No

Comment:

Date given for ERCS after 39 weeks

Signature:

Name:

Designation:

Other comments (if applicable):

Signature: _____ Name: _____ Designation: _____

10.3 Attachment 3 Post Operative Information Letter for women following Caesarean section

Dear

Re: Information about your recent caesarean section (c/s)

Congratulations on the birth of your baby. You and your family may have many questions regarding your labour and birth and what will happen if and when you have another baby. This letter is to provide you with a brief summary of the reason/s that led to the decision for a caesarean section for this pregnancy. This information may also be useful should you consider planning another pregnancy, for many women a Vaginal Birth After Caesarean (VBAC) is an option in a future pregnancy providing there are no contraindications.

Generally, it is important to know that it is recommended that women wait between 18 - 24 months from their most recent caesarean section until the birth of their next child.

If you have any questions about the information contained in this letter please discuss with your GP, GP obstetrician or midwife.

1. Reason/s for caesarean section operation performed on (date) / / (Please tick one or more reasons below that apply and comment if relevant)		
<input type="checkbox"/> Slow progress in labour	<input type="checkbox"/> Induction not established	<input type="checkbox"/> Non reassuring fetal status
<input type="checkbox"/> Transverse lie	<input type="checkbox"/> Breech	<input type="checkbox"/> Brow/Face
<input type="checkbox"/> Placenta praevia	<input type="checkbox"/> Previous uterine surgery	<input type="checkbox"/> Other (please state)
2. Labour prior to C/S <input type="checkbox"/> Yes <input type="checkbox"/> No		The cervix was _____ cm dilated at the time of C/S
3. Length of first stage of established labour _____ hours		Length of second stage of labour _____ hours
4. Unsuccessful instrumental vaginal birth: <input type="checkbox"/> Ventouse or <input type="checkbox"/> Forceps <input type="checkbox"/> Not applicable		
5. What position was the baby's head at birth? <input type="checkbox"/> Anterior <input type="checkbox"/> Posterior <input type="checkbox"/> Transverse		
6. The level of the baby's head was: <input type="checkbox"/> Above <input type="checkbox"/> At <input type="checkbox"/> Below the ischial spines		
7. The uterus was closed in two layers <input type="checkbox"/> Yes <input type="checkbox"/> No		
8. The incision on the uterus was: <input type="checkbox"/> Lower segment <input type="checkbox"/> Transverse <input type="checkbox"/> Non-lower segment <input type="checkbox"/> Vertical		
9. Medical or obstetric reasons for NOT considering a vaginal birth for your next pregnancy		
Person completing this form:		
Name	Signature	Designation