

Vaginal birth after caesarean section (VBAC)

Clinical Guideline Presentation v3.0



45 minutes

Towards your CPD Hours

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References:

The Queensland Clinical Guidelines clinical guideline *Vaginal birth after caesarean section (VBAC)* is the primary reference for this package.

Recommended citation:

Queensland Clinical Guidelines. Vaginal birth after caesarean section (VBAC). Clinical guideline education presentation I15.6-V3-R20. Queensland Health. 2015.

Disclaimer:

This presentation is an implementation tool and should be used in conjunction with the published guideline. This information does not supersede or replace the guideline. Consult the guideline for further information and references.

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Objectives

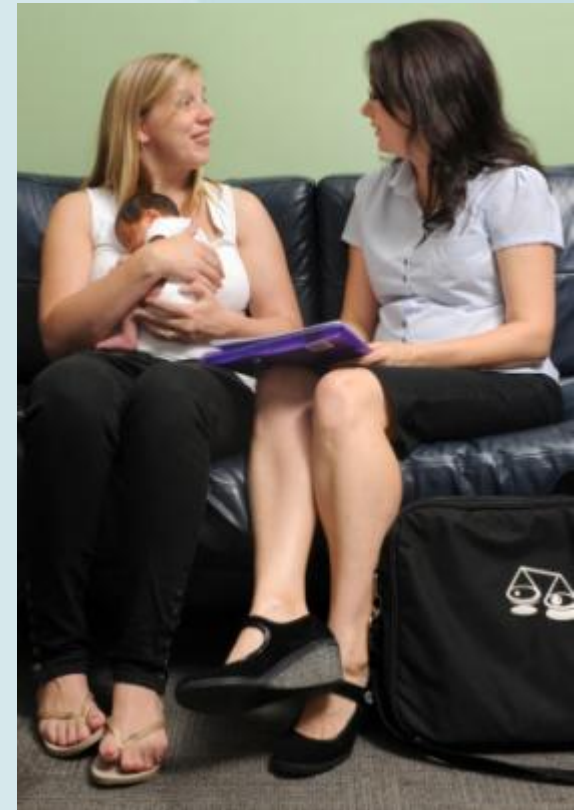
- Outline discussion and planning considerations
- Outline benefits and harms of VBAC
- Identify best practice care of women planning a VBAC

Introduction

- The options for next birth after a primary caesarean section include:
 - A planned VBAC which will result in either a vaginal birth or an emergency CS
 - An elective repeat caesarean section (ERCS)
- Planned VBAC is a reasonable and safe choice for most women

Following the primary/prior CS

- Offer all women the opportunity to talk and discuss their birth, including:
 - Labour and birthing concerns
 - Unplanned events
 - Reason for the CS
 - Planning for future pregnancies and births:
 - A minimum 18 month interval from CS to VBAC is recommended



Antenatal care

- Shared decision making
 - Discussion and planning to support women make an informed choice
- An antenatal discussion before 24 weeks
- Planning and discussion with an Obstetrician (preferably) before 36 weeks
 - 32 weeks if antenatal transfer is anticipated
- If individualised care planning is not available at the local facility, refer according to local and professional consultation and referral guidelines



Facility capabilities

- Refer to the current Clinical Services Capability Framework (CSCF)
- Ensure service can provide:
 - Access to an emergency (Category 1) Caesarean Section
 - Continuous intrapartum fetal monitoring
 - One-to-one midwifery care during labour
 - Advanced neonatal resuscitation
 - Onsite blood transfusion
 - 24 hour anaesthetic services

Discussion and planning

Include:

- Maternal preferences and priorities
- Capabilities of the maternity service
- Previous birth information
- Potential maternal and perinatal benefits and harms of VBAC and ERCS in the context of a woman's individual circumstances
- Explanation of the reasons if VBAC is not advised
- Birth plan
- Culturally competent care and interpreters
- Written information
- Document





Contraindications

- Maternal or fetal reasons to avoid vaginal birth in current pregnancy
- Previous uterine incision other than transverse segment
- Previous uterine rupture
- Previous hysterotomy or myomectomy entering the uterine cavity

Considerations

- Previous CS
 - Locked single layer uterine closures associated with higher risks of uterine rupture when compared to unlocked single and double layer closures
- Birth interval of less than 18 months from previous CS to due date
- VBAC after 2 previous CS
- Multiple pregnancy
- Suspected fetal macrosomia
- Uterine segment thickness
 - Role of ultrasound in predicting risk of rupture is uncertain and not routinely recommended

Likelihood of VBAC

- Overall VBAC 60-80% of planned VBACs
- Previous vaginal birth is a strong predictor
 - VBAC rate approaches 90%
- Younger maternal age
- Caucasion/white ethnicity
- BMI < 30 kg/m²
- Prior CS not related to arrest of labour
- Spontaneous onset of labour < 40 weeks
- Cervical dilatation greater than 4 cm on admission
- Birth weight less than 4 kg

VBAC & ERCS: benefits & harms

- Planned VBAC which results in vaginal birth is associated with fewer complications than an ERCS
- A planned VBAC which results in an emergency CS is associated with more complications than an ERCS
- The absolute risk of birth related perinatal loss with planned VBAC is comparable to the risk for women having their first baby



Harms



Infrequent
BUT
significant
and serious

VBAC & ERCS: benefits & harms

Consideration		
Uterine rupture	Number per 1000 women (95% CI)	
	VBAC	ERCS
• Total	4.7 (2.8–6.8)	0.4 (0.2–1.1)
• Spontaneous labour without Oxytocin augmentation	1.9 (1.1–3.2)	n/a
• Second pregnancy – first birth an emergency CS	2	0.4
• Second pregnancy – first birth a planned CS	3	0.7
Subsequent to uterine rupture	Number per 1000 uterine ruptures	
• Maternal mortality	Nil	
• Hysterectomy	140–330	
• Perinatal mortality	60	
• Neonatal morbidity (hypoxic-ischaemic encephalopathy)	62	
○ Subsequent neonatal mortality	18	
• Neonatal morbidity at term gestation	0–28	
Other	Number per 1000 women (95% CI)	
	VBAC	ERCS
• Maternal infection	63 (34–101)	39 (23–58)
• Perinatal mortality	1.3 (0.6–3)	0.5 (0.07–3.8)

Induction of labour

- Requires caution
- Risk of uterine rupture is increased
 - 12 (9-16, 95% CI) per 1000 women
- Overall 630 (590-670, 95% CI) births per 1000 women who planned VBAC and were induced



CI: 95% Confidence interval

Induction of labour

- Mechanical methods of cervical ripening and/or amniotomy (ARM) associated with lower risk of uterine rupture than Prostaglandin and/or Oxytocin
- A history of previous uterine surgery is a (manufacturer recognised) contraindication for Prostaglandin and Oxytocin:
 - Obtain informed consent and document in the woman's notes

Intrapartum care – on admission

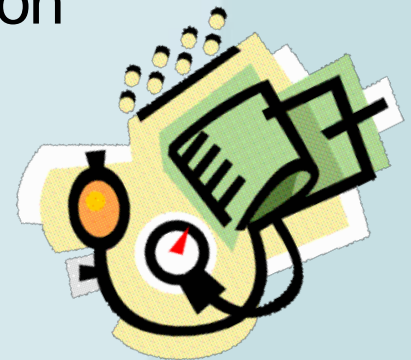
- Notify and consult the medical obstetric team
- Review care plan – revise as required
- One-to-one midwifery care
- IV cannulation – 16 gauge or larger
- Blood group & hold
- Full blood count
- Notify anaesthetic team and operating team as per local policy



Intrapartum care – assessment

In addition to routine maternal and fetal assessment:

- Vaginal examination with informed consent
 - Within 1 hour of admission, and then
 - Once labour is established:
 - 4 hourly/if indicated until 7 cm dilated, then consider
 - 2 hourly/if indicated after 7 cm dilatation



Intrapartum care – assessment

- Maintain close observation:
 - Utilise partogram with warning and action lines
 - Observe for signs and symptoms of uterine dehiscence or rupture
- Refer to the National Consensus Statement: essential elements for recognising and responding to clinical deterioration
- Discomfort and pain – routine care



Intrapartum care – FHR assessment

- Following the onset of uterine contractions, continuous electronic fetal monitoring (CEFM) is recommended
- An abnormal fetal heart rate (FHR) is the most consistent finding in uterine rupture
- Water immersion depends on availability of CEFM



Augmentation with Oxytocin

- Requires caution
- Risk of uterine rupture is increased
 - 19 (10-33, 95% CI) per 1000 women
- Overall 680 (640-720, 95% CI) births per 1000 who planned VBAC and were augmented



Uterine rupture

- The signs and symptoms of uterine rupture are typically non-specific, some are rare and some may be associated with other obstetric circumstances, making diagnosis of uterine rupture difficult
- *Category 1 Caesarean Section is required for suspected uterine rupture as there is an urgent threat to the woman and her baby*

Uterine rupture – signs & symptoms

- Prolonged, persistent, profound bradycardia
 - The most common sign of uterine rupture
 - Occurs in approximately 80% of cases
 - Is associated with poor perinatal outcomes
- FHR pattern suggesting fetal compromise
- Abdominal pain, acute onset of scar tenderness
- Pain may continue between contractions
- Abnormal progress in labour
- Vaginal bleeding
- Cessation of previously efficient uterine activity, including hyperstimulation and/or in-coordinate contractions
- Loss of station of the presenting part
- Chest pain or shoulder tip pain
- Maternal tachycardia, hypotension or shock

Second stage

- Reassess and notify obstetrician if duration exceeds:
 - 1 hour for passive descent, and/or
 - 1 hour for active stage in the woman who has not been in the active stage previously
 - 30 minutes for active stage in the woman who has previously laboured through second stage active labour

Third stage

- Exploration of uterine scar is unnecessary and not recommended

Postpartum care

- Offer women an opportunity to discuss implications for future pregnancies
- Utilise Indigenous health worker/interpreter as required