

NEXT BIRTH AFTER CAESAREAN SECTION (NBAC)

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Appropriate management, counselling and support of a woman who has had one or more prior caesarean sections

2. PATIENT

- Pregnant woman who has had one or more previous Caesarean Sections (CS)

3. STAFF

- Registered midwives
- Student Midwives
- Medical Staff

4. EQUIPMENT

5. CLINICAL PRACTICE

- Discuss reasons for previous caesarean section(s) at booking visit.
- Discuss woman's preferences, understanding and suitability for birth options for this pregnancy.
- **Woman who has had one previous Lower Segment Caesarean Section (LSCS)**
 - **Antenatal**
 - ◆ Discuss ways to optimise vaginal birth and provide the Next Birth After Caesarean Section (NBAC) patient information sheet (**Appendix B**) at booking visit
 - ◆ Review availability for referral to Midwifery Group Practice (MGP) if woman wishes
 - ◆ Insert NBAC checklist into medical records and complete as indicated (Antenatal checklist: supporting women in their next birth after CS. NSW Health document SMR060.615)
 - ◆ Request medical records of previous CS if performed elsewhere by writing to the relevant hospital
 - ◆ Recommend all women with no medical/obstetric contra-indications to vaginal birth after caesarean section (VBAC) are referred to the multi-disciplinary NBAC group session in the second trimester of pregnancy (following the morphology ultrasound), to receive counselling regarding the risks and benefits of VBAC in her case (**Appendix A**)
 - ◆ Arrange individual consultation with medical team at time of VBAC group session at 20 weeks gestation
 - ◆ Refer woman for medical consult, as per planned model of care, if unsuitable or unwilling to attend NBAC group discussion
 - ◆ Document medical discussion and agreed management plan in the medical record and on NBAC checklist
 - ◆ Following NBAC group attendance, refer woman back to planned model of care for ongoing management. This should include booking Elective Repeat Caesarean Section (ERCS) if requested, and discussing plans if labour commences prior to booked CS date. ERCS should usually be booked for between 39+0 and 39+6 weeks gestation

CLINICAL POLICIES, PROCEDURES & GUIDELINES

Approved by Quality & Patient Safety Committee
18 December 2014

NEXT BIRTH AFTER CAESAREAN SECTION (NBAC) cont'd

- ◆ Offer vaginal examination for stretch and sweep of cervix from 37 weeks gestation onwards
- ◆ Offer referral back to NBAC group at 36-37 weeks to further discuss strategies and post-dates options +/- book repeat ERCS if requested, as per related policies. Continue with planned model of care until 39 weeks
- ◆ Refer at 40 weeks for 1:1 clinic appointment with NBAC clinic obstetrician to discuss risks, benefits and options of induction of labour (IOL) or ERCS if no spontaneous labour by 41 weeks. IOL or CS will be booked at this visit
- ◆ Discuss options for Induction of Labour as appropriate:
 - Obtain written consent for induction of labour if planned, by consultant obstetrician. This consent must outline the increased risks of scar rupture with induction of labour and maternal and fetal risks of uterine rupture.
 - Foley's catheter / Artificial Rupture of Membranes (ARM) ± wait for up to 24 hours (whilst admitted to ward, or discharged home, after discussion with consultant obstetrician)
 - Oxytocin may be considered to initiate labour in a fully counselled woman. Up to 12 hours of oxytocin: birth should be imminent. Oxytocin is to be commenced in the morning, preferably before 10am during weekdays only, if this is going to be used
 - IOL for women attempting VBAC should be rarely undertaken on weekends and then only at the discretion of the weekend consultant obstetrician
 - Consider oxytocin cessation once labour established and cervix is ≥6cm
 - Prostaglandins are contraindicated in women attempting VBAC
- **VBAC is contraindicated in women who have:**
 - A previous classical, vertical, upper segment, inverted T or J incision, previous hysterotomy, 3 or more previous caesarean sections, complex uterine surgery including myomectomy which breached the capsule of the uterus
 - Any maternal or fetal condition where vaginal birth is contraindicated
- **Woman who has had two previous LSCS:**
 - Discuss reasons for previous LSCS and woman's preferences for and understanding of birth options for this pregnancy at booking visit
 - Refer woman to MGP wherever possible if she is planning for a vaginal birth
 - ◆ Refer woman for medical consult (following morphology scan) as per planned model of care and document medical discussion and agreed management plan in the medical record and on NBAC checklist
 - Offer vaginal examination for stretch and sweep of cervix from 37 weeks gestation
 - Having had two or more caesarean sections is a contraindication for VBAC
- **Labour**
 - Arrange one-to-one care by a midwife during labour
 - Perform continuous electronic fetal heart rate monitoring (EFM) once in established labour
 - Insert a 16 gauge intravenous cannula and send blood for full blood count and group and hold
 - Take maternal observations in labour as per 1st stage labour LOP
 - Assess progress of labour regularly, including at least 4th hourly vaginal examination
 - Consult obstetric registrar or consultant if progress is inadequate
 - Avoid prolonged labour, aiming for birth to occur within 12 hours of established labour
 - Allow 1 hour for passive descent in second stage and 1 hour of active pushing if no prior vaginal birth, or ½ hour active pushing if woman has had a previous vaginal birth, following this time request medical review

CLINICAL POLICIES, PROCEDURES & GUIDELINES

Approved by Quality & Patient Safety Committee
18 December 2014

NEXT BIRTH AFTER CAESAREAN SECTION (NBAC) cont'd

- Observe for loss of contractions, loss of station of presenting part, continuous pain in lower abdomen between contractions and notify Registrar or Consultant if any concerns regarding signs or symptoms of possible scar rupture
- Augmentation of labour (commencement of oxytocin after the commencement after spontaneous contractions) is contraindicated in VBAC. Oxytocin may only be used after the agreement of the obstetric consultant on call for the initiation of labour only.
- Epidural analgesia is not contraindicated
- Discuss with Consultant obstetrician regarding role of fetal blood sampling versus role of caesarean section if pathological CTG in labour.

6. DOCUMENTATION

- Antenatal notes
- Integrated clinical notes
- Yellow card
- Partogram
- ObstetriX
- NBAC Checklist

7. EDUCATIONAL NOTES

- **Success rates for women attempting a VBAC is approximately 63%**
- **Benefits of vaginal birth after caesarean:**
 - Earlier initiation of breastfeeding and enhanced mother- infant bonding
 - Earlier mobilisation for the mother and resumption of normal activities
 - Reduced blood loss
 - Reduced risk of deep vein thrombosis
 - Reduced risk of readmission to hospital
 - Reduced risk of a placenta praevia, placenta accreta, bowel adhesions, risk of organ damage and/or caesarean section in future pregnancies¹⁰
 - Shorter length of hospital stay¹⁰
- **Women who are most likely to achieve VBAC are:**
 - Those who have already had a previous vaginal birth
 - Those who had a previous LSCS for a non-recurrent reason - eg breech or suspected fetal compromise and not for a reason related to arrest of labour
 - Those who labour spontaneously
 - Cervical dilatation >4cm on admission to hospital
 - Those with a normal body mass index (BMI). (BMI $\geq 30\text{kg/m}^2$ halves the success of VBAC)
 - Those who are motivated and those who have one-to-one midwifery care in labour

CLINICAL POLICIES, PROCEDURES & GUIDELINES

Approved by Quality & Patient Safety Committee
18 December 2014

NEXT BIRTH AFTER CAESAREAN SECTION (NBAC) cont'd

• **Risks of VBAC :**

- Uterine rupture is associated with significant risks of both maternal and fetal morbidity or mortality
- The following are associated with an increased risk of uterine rupture:
 - ◆ Birthweight greater than 4,000g¹¹
 - ◆ Induction of labour¹¹
 - ◆ Maternal age >35 years¹¹
 - ◆ Term pregnancy (>37 weeks)¹⁰
 - ◆ Post-term pregnancy (>42 weeks)¹¹
 - ◆ Single layer uterine closure¹⁰
- The risk of uterine rupture varies according to the following:

◆ Spontaneous labour	5:1,000 ¹⁵
◆ Induced labour	15:1,000 ¹⁰
◆ Augmented with Oxytocin	19:1,000 ⁹
◆ Inter-delivery interval of less than 18 months	48:1,000 ⁸
◆ Term gestation	8:1,000 ¹⁰
◆ Two or more caesarean sections	16:1,000 ¹⁰
- Perinatal mortality as a direct result of uterine rupture is 2-3:10,000 (the same risk for nulliparous women in labour)⁴
- The risk of neonatal death in VBAC is 13:10,000 compared with 1:10,000 for elective repeat caesarean section, however the numbers are small
- The risk of hypoxic-ischaemic encephalopathy (HIE) in VBAC is 8:10,000 compared with virtually zero for elective repeat caesarean section, however again the numbers are small²
- The risk of hysterectomy after uterine rupture is 14-33%¹⁰
- A pathological CTG is the most consistent early finding in uterine rupture and is present in 55-87% of these events, hence the importance of continuous electronic fetal monitoring.

• **Signs and symptoms of uterine rupture include :**

- Decelerative fetal heart rate changes (acute and prolonged)
- Sudden onset of vaginal bleeding
- Maternal hypotension and tachycardia
- Continuous pain over scar
- Cessation of previously efficient contractions
- Loss of fetal station on vaginal examination or abdominal palpation
- Assessment of progress in labour should take into account a woman's previous labour history. A woman who has laboured to near full dilatation should be expected to make faster progress than a woman who has never laboured previously.

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE GUIDELINES

- First stage labour care for women with a low risk pregnancy
- Second stage labour care for women with a low risk pregnancy
- Caesarean Birth – Maternal Preparation and Receiving the Newborn
- Intrapartum Fetal Monitoring
- Obesity in pregnancy, labour and postpartum
- Vaginal examinations in labour
- ACM Guidelines for Consultation and Referral
- Sweeping Membranes to Prevent Post term Pregnancy
- Induction of Labour
- Supporting Women in their Next birth After Caesarean Section (NBAC). Guideline GL20014_004 NSW Kids and Families

NEXT BIRTH AFTER CAESAREAN SECTION (NBAC) cont'd

9. RISK RATING

- Medium

10. REFERENCES

- 1 Brill, Y. & Windrim, R. (2003) *VBAC: Review of antenatal predictors of success*. Journal of Obstetrics and Gynaecology of Canada, 25 (4) p275-286
- 2 Landon, M., Hauth, J. et al (2004) *Maternal and perinatal outcomes associated with a trial of labor after prior cesarean section*. New England Journal of Medicine, 351, (25) p 2581-2589
- 3 Landon, M., Spong, C. et al (2006) *Risk of uterine rupture with a trial of labour in women with multiple and single prior cesarean delivery*. Obstetrics and Gynecology 108, (1) p12-19
- 4 Royal College of Obstetricians and Gynaecologists (2007). Birth after previous caesarean section green-top guideline No 45. RCOG
- 5 Women's Hospitals Australia clinical practice guideline (2005). *Vaginal birth after Caesarean or repeat elective caesarean*
- 6 Sherrard, A et al (2007) Maternal anthropometric risk factors for caesarean delivery before or after onset of labour. BJOG;114:1088-96
- 7 Guise JM, McDonagh MS, Osterweil P, Chan BK, Helfand M (2004). *Systematic view of the incidence and consequences of uterine rupture in women with previous caesarean section*. BMJ;329:19-25
- 8 Royal College of Obstetricians and Gynaecologists (2001). *The use of electronic fetal monitoring. The use and interpretation of cardiotocography in intrapartum fetal surveillance*. Evidence based Clinical Guideline Number 8. London: RCOG Press
- 9 Dekker, G et al (2010) *Risk of uterine rupture in Australian women attempting vaginal birth after one previous Caesarean section*. BJOG 117;1358-65
- 10 Cunningham FG, Bangdiwala S, Brown SS, Dean TM, Frederiksen M, Rowland Hogue CJ, King T, Spencer Lukacz E, McCullough LB, Nicholson W, Petit N, Probstfield JL, Viguera AC, Wong CA, Zimmet SC. National Institutes of Health Consensus Development Conference Statement: Vaginal Birth After Cesarean: New Insights. March 8—10, 2010. Obstetrics & Gynecology. 2010; 115(6):1279–1295.
- 11 Kaczmarczyk, M et al (2007) Risk factors for uterine rupture and neonatal consequences of uterine rupture: a population-based study of successive pregnancies in Sweden. BJOG;114:1208-1214
- 12 NSW Health (2010) PD2010_045 *Maternity- Towards Normal Birth in NSW*. NSW Health, Sydney.
- 13 Australian College of Midwives (3rd Edn) 2013 *National Midwifery Guidelines for Consultation and Referral*. ACM Canberra
- 14 NSW Health (2007) PD2007_024 *Maternity- Timing of Elective or Pre-Labour Caesarean Section*. NSW Health, Sydney
- 15 Supporting Women in their Next Birth after Caesarean Section (NBAC) (2014) GL2014_004 NSW Kids and Families
- 16 [BJOG](#). 2014 Jan;121(2):183-92. doi: 10.1111/1471-0528.12508. Epub 2013 Nov 20. Vaginal birth after caesarean section: a cohort study investigating factors associated with its uptake and success. [Knight HE¹](#), [Gurol-Urganci I](#), [van der Meulen JH](#), [Mahmood TA](#), [Richmond DH](#), [Dougall A](#), [Cromwell DA](#).

REVISION & APPROVAL HISTORY

Flowchart added May 2015

Previous title *Vaginal Birth After Caesarean Section (VBAC)*

Reviewed and Endorsed Maternity Services LOPs 2/12/14

Approved Quality & patient Safety Committee 15/4/11

Reviewed and Endorsed Obstetric Clinical Guidelines Group December 2010

Revised May 2004

Approved Quality Council 17/11/03

Endorsed Maternity Services Clinical Committee 11/11/03

FOR REVIEW : DECEMBER 2017

INFORMATION FOR STAFF ONLY

RHW NEXT BIRTH AFTER CAESAREAN SECTION (NBAC) CLINIC

Who comes to the NBAC Clinic?

- All women who are having their next birth after one previous caesarean section (CS)
- Any woman who has a previous Vaginal Birth After Caesarean Section (VBAC) and wishes to attend NBAC clinic

Women do not need to come if:

- They have had a caesarean section followed by a normal birth and are planning a VBAC again this pregnancy and don't wish to attend
- They have a medical indication for repeat CS identified at booking
- They have had 2 or more previous caesareans

When should women come?

- At 20 weeks for counselling and discussion about risks and benefits
- 36-37 weeks gestation for further discussion about strategies to enhance VBAC success and for post dates management options
- At 40 weeks (1:1 appointment with NBAC clinic obstetrician) to discuss risks, benefits and options of Induction of labour (IOL) or ERCS if no spontaneous labour by 41 weeks. IOL or CS will be booked
- All other scheduled visits will be with their allocated model of care
- Women may attend at other times for further clarification of information if requested, but should be encouraged to continue with their allocated model of care

The 'NBAC' clinic will be run weekly BUT alternates between 20 and 36 week groups

Patient information leaflet

NEXT BIRTH AFTER PREVIOUS CAESAREAN SECTION

Introduction:

- This leaflet is to help you to make a choice about your next birth. Discuss this with your midwife or doctor.
- Many women who have had a previous caesarean section can safely have a vaginal birth in their next pregnancy. This is called Vaginal Birth after Caesarean, or VBAC.
- Studies have shown that up to 7 out of every 10 women with a previous caesarean can have a safe and successful VBAC.

Can I have a VBAC?

Yes - in most cases.

We advise you not to attempt VBAC if you:

- have had a previous Classical (up-and-down) caesarean
- have had other surgery to the upper part of your womb
- need a caesarean section for another reason e.g. placenta praevia
- have had a previous uterine rupture
- your baby is not coming head first
- have had three or more caesarean sections
- if it has been less than 18 months since your last caesarean section

What are the advantages of successful VBAC?

- Lower risk of:
 - Heavy bleeding
 - Blood clots in the legs or lungs
 - Other complications of surgery e.g. damage to internal organs
- Shorter hospital stay, a quicker recovery and a quicker return to normal activities (e.g. driving)
- Lower risk of problems in future pregnancies and births

What are the risks of trying for a VBAC?

- You may need a caesarean section in labour.
- Uterine rupture, meaning that the scar on the uterus tears. This happens in about 1 in 200 women having a VBAC. If this happens you will need to have an emergency caesarean
- Slight risk of blood transfusion
- In an extremely small number of cases of women attempting VBAC the baby can die because of the uterine scar tearing. This has been estimated to occur in 1 in 2000 women attempting VBAC; the same risk of a baby dying for any woman during her first labour.

What are the advantages of repeat Caesarean section?

- Timing of birth is planned for the week before your due date (39 weeks)
- There is much less risk of a uterine rupture

What are the risks of repeat Caesarean section?

- The risks of surgery: infection, organ injury including to bladder or bowel, anaesthetic risks
- The risks of surgery increase with the number of caesarean sections
- Blood clots in the leg or lung are more common
- Higher chance of placenta problems in future pregnancies (e.g. placenta praevia/accreta)

How is a VBAC labour different to my previous labour?

We recommend:

- That your baby's heart rate is monitored electronically throughout your labour.
- You have a cannula (drip) in your hand in labour
- Regular assessment of labour progress by your midwife and doctor by feeling your abdomen and vaginal examination

Can labour be induced if I have had a previous caesarean section?

- This needs to be done very carefully.
- This should be discussed with your midwife and doctor.

I have had two previous caesareans. Can I have a VBAC?

- The chances of a successful VBAC following two previous caesareans are likely to be reduced when compared to women with one previous caesarean. The risks are increased. If you wish to talk about this option please speak to your doctor or midwife.

What if my baby is bottom first (breech)?

- Having an obstetrician turn the baby around from bottom to head-first (“external cephalic version” or “ECV”) is thought to be safe.
- This would be done around 37 weeks of pregnancy if you wish to have a VBAC.
- Discuss this with your midwife and doctor.

If I’m going to have an elective caesarean birth, when is the best time to have it?

- We usually book caesarean sections in the week before your due date (at 39 or more weeks) so that the baby’s lungs can be as mature as possible
- If you go into labour before your booked caesarean date your midwife and doctor will discuss your options with you.



NSW Health

Facility:

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

FAMILY NAME		MRN
GIVEN NAME		<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
D.O.B. ____/____/____	M.O.	
ADDRESS		
LOCATION / WARD		
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		



SMR060615

Holes Punched as per AS2828.1: 2012
BINDING MARGIN - NO WRITING



SMR060615

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 <i>(please document follow up plan on next page)</i>	
Signature: _____	Name: _____	Designation: _____		

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

SMR060615

NO WRITING

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

FAMILY NAME		MRN
GIVEN NAME		<input type="checkbox"/> MALE <input type="checkbox"/> 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	If planned VBAC:	Yes	No	Comment:
Date: / /	Woman aware of local guidelines for VBAC (cannula/CTG/ regular VE for progress etc)			
Gestation:	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:
------------	-------	--------------

 Holes Punched as per AS2828.1: 2012
 BINDING MARGIN - NO WRITING

PROPOSED PATHWAY FOR MULTIDISCIPLINARY NEXT BIRTH AFTER CAESAREAN (NBAC) CLINIC

