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Vaginal Birth After Caesarean Section (VBAC)

Introduction and Aim

Due to the increased rate of caesarean birth, more women require counselling in subsequent pregnancies to decide on a mode of delivery. VBAC is considered a safe option for mother and baby.

This document aims to provide guidance on the antenatal care and counselling that should be provided to women in pregnancies where they have had a previous caesarean section.

Executive Summary

Change in Practice	Comment	Document Link
Antenatal care in women with previous caesarean birth	New table and flowchart outlining antenatal care for women considering either VBAC or ERCS.	**3** Antenatal Care in women with previous caesarean section**.** Figure 1 Flowchart detailing antenatal care for women with 1 previous caesarean section**.**
Risks of VBAC	Updated risks of VBAC to discuss during antenatal counselling	Discussing
VBAC2	Counselling women for the option of vaginal birth after 2 previous caesarean sections	Vaginal Birth After 2 Caesareans (VBAC2)**,** Table 4 Outcomes of VBAC2 compared with Repeat Caesarean Section (RCS) in women with 2 previous caesarean sections[8]
VBAC Counselling Proforma	Standardised tool for discussing mode of delivery in women with previous caesarean section	Antenatal counselling of women with 1 previous caesarean section

Objectives

- Standardise the counselling provided to women with previous caesarean births in subsequent pregnancies.
- Standardise the antenatal care provided to women with previous caesarean births in subsequent pregnancies.

Scope	
This procedure applies to all of our staff in all locations including those with honorary contracts.	
Equality Health Impact Assessment	An Equality Health Impact Assessment (EHIA) has been completed.
Documents to read alongside this Procedure	Induction of Labour Guideline, 2019 Intrapartum Care Guideline RCOG VBAC Information Leaflet
Approved by	Maternity Professional Forum Quality and Safety Meeting (Obstetrics)

Accountable Executive or Clinical Board Director	Title of post holder
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Summary of reviews/amendments			
Version Number	Date of Review Approved	Date Published	Summary of Amendments
1	May 2007	May 2007	New document Author: Pina Amin
2	Aug 2010	Aug 2010	Document Reviewed Author: Pina Amin
3	Nov 2013	Dec 2013	Document Reviewed Author: Pina Amin
4	June 2020		Document reviewed and updated. Author: Ruba Halabi

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2 Introduction

Caesarean delivery represents 27.9% of all births in Wales[1]. Consequently, there is an increasing number of women deciding on mode of delivery in a subsequent pregnancy. International consensus[2,3] is that planned VBAC is a clinically safe choice for women with a single previous lower segment caesarean delivery. Counselling should ideally be performed by a senior obstetrician with access to the previous surgical notes to decide on mode of delivery.

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3 Antenatal Care in women with previous caesarean section

In addition to routine midwifery care for multiparous women, patients with a previous caesarean section should be referred for a consultant general antenatal clinic appointment between 16-18 weeks gestation. It is recommended that these women remain under consultant led care for the duration of their pregnancy and labour. This should be agreed between the woman and her consultant at the initial appointment, following review of her individual case.

Referral should be made at booking using routine clinic referral pathways.

Gestational age	Place	Action
12 weeks	Community midwife antenatal clinic	Review obstetric risk factors. If previous caesarean section, refer to general antenatal clinic using routine referral pathways.
16-18 weeks	Consultant led antenatal clinic	Review previous labour and delivery notes. If the birth occurred in another trust, request information by letter. Assess individual risks for VBAC and ElCS. Fully discuss birth options with woman. Document this discussion on the VBAC proforma, which should be filed in the notes. Women should be made aware that if opting for VBAC, birth on the consultant led unit with continuous fetal monitoring is recommended. All women requesting birth outside of the obstetric unit should be referred to the Birth Choices clinic. Discuss the possibility of preterm labour, and mode of birth in this situation. Discuss increased risks with induction or augmentation of labour. If the patient is unsure of mode of birth, offer referral to the Birth Choices clinic. Provide RCOG VBAC information leaflet. Discuss postnatal contraception, including sterilisation at the time of caesarean section if appropriate.

20 weeks	Anomaly scan/ Day assessment unit	**If a low-lying placenta has been identified, follow placenta praevia guideline**.
30-34 weeks	Birth choices clinic, Consultant Midwife	**If undecided about birth options.** Full discussion of options for mode of birth, with available notes from previous birth.
36 weeks	Consultant led antenatal clinic	**Required for women requesting ElCS or unsure of mode of delivery at the 16 weeks appointment.** Re-discuss risks and benefits of each birth option. Final decision required regarding mode of birth. If requesting ElCS, book and consent for ElCS from 39 weeks gestation, unless indicated otherwise. Discuss possibility of spontaneous labour prior to 39+0 weeks gestation, and document decision regarding mode of birth in this situation (emergency caesarean section vs VBAC). Discuss postnatal contraception option. Provide postnatal contraception leaflet. Clearly document decision in woman's notes.
39-40 weeks	Consultant led antenatal clinic	**Required for women wishing to have VBAC.** Discuss increased risks with induction of labour or augmentation of labour. Offer stretch and sweep and perform if accepted. Clearly document Bishop score in the maternity notes. Assess individual risks for induction of labour. If woman wishes to proceed, book induction of labour. Timing of induction should be agreed between the woman and the consultant obstetrician or senior obstetric registrar. Ensure joint decision making with the woman at the centre, taking into account her wishes for birth. If woman declines induction of labour, consultant review should occur. Discuss post-dates caesarean section to allow opportunity for spontaneous labour. Timing of ElCS should be decided following discussion between the woman and the consultant obstetrician.

Labour and Delivery	Consultant Led Unit	Women should be admitted once in established labour, as per term intrapartum guidelines. FBC should be obtained on admission in labour. A group and save must be sent, and the woman's suitability for electronic issue confirmed. Continuous electronic fetal monitoring should be used.

Table 1 Additional antenatal appointments for women with 1 previous caesarean section.

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3.1 Antenatal Care for Women with 1 previous Caesarean Section

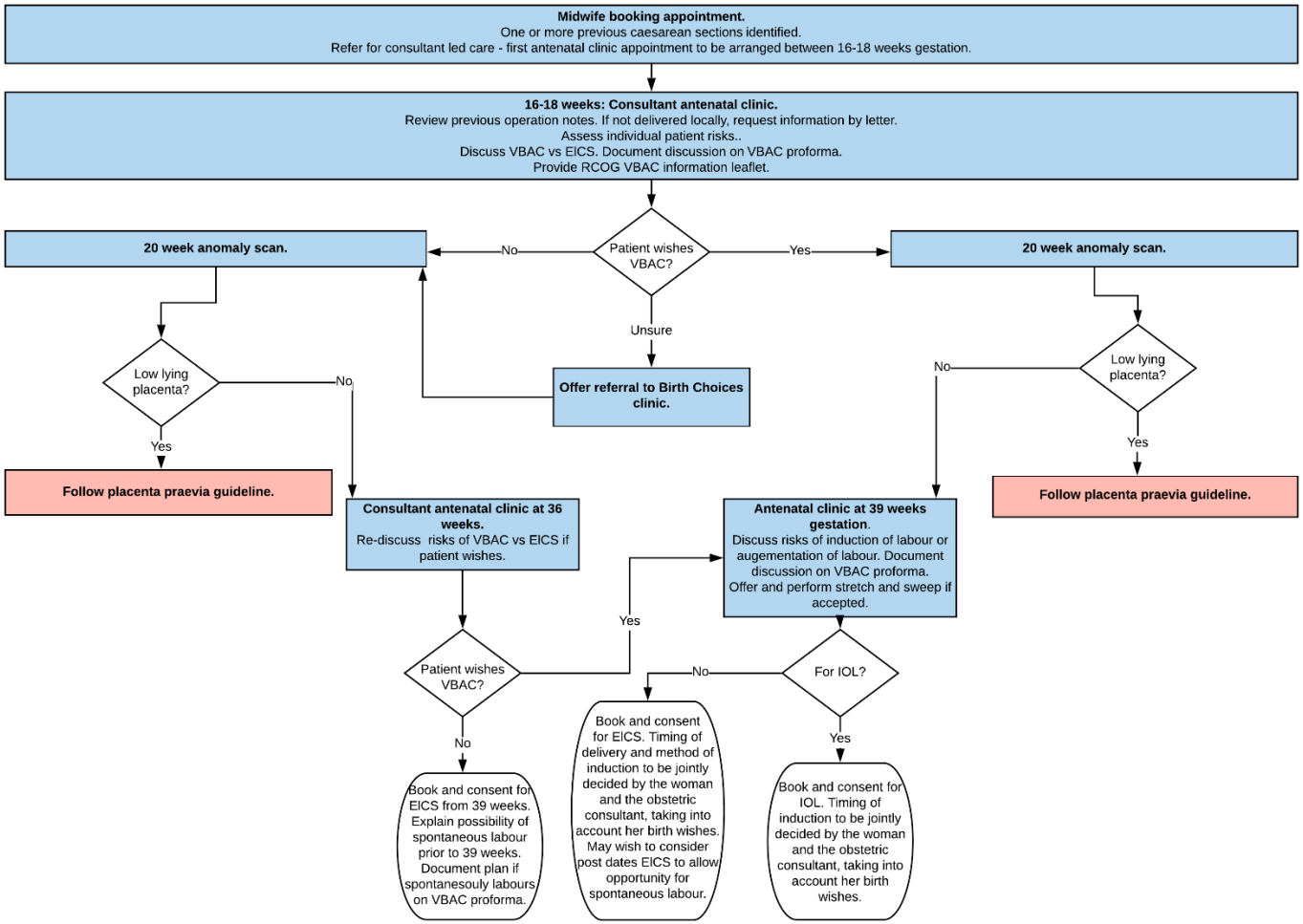

Figure 1 Flowchart detailing antenatal care for women with 1 previous caesarean section

4 Discussing Birth Choices

4.1 Vaginal Birth After Caesarean (VBAC)

Information regarding the benefits and risks of VBAC compared with Elective Caesarean Section (ElCS) are detailed in Section 5.

An individual assessment should be performed at the initial consultant antenatal clinic appointment, to identify risk factors for uterine rupture, assess the individual likelihood of success of VBAC for each patient, and identify any contraindications for VBAC. This should be clearly documented on the VBAC Counselling Proforma (Section 5).

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4.1.1 Success rates of VBAC

Women should be advised that 72-75% of VBAC after one previous caesarean delivery are successful. If there has been at least one previous vaginal birth, especially if that was a VBAC, the success rate increases up to 85-90%.

Clinicians should be aware that unsuccessful VBAC is more likely if labour is induced, if there has been no previous vaginal delivery, if the BMI is greater than 30, and if the previous caesarean section was for labour dystocia. If all of these are present, successful VBAC is achieved in 40% of cases[3].

4.1.2 Risk of uterine rupture

An individualised assessment of the suitability of VBAC should be made in women with factors that increase the risk of uterine rupture (outlined in Table 2)[3]. The presence of these risk factors does not contraindicate VBAC, but may be considered in the decision-making process, especially if considering induction or augmentation of VBAC labour. A senior obstetrician should assess these risk factors and advise each woman about her individual risks.

Factors that potentially increase the risk of uterine rupture	**Comment**
Short Inter-delivery interval	Less than 12 months since last delivery (interval calculated delivery date to delivery date).
Post-date pregnancy	
Maternal age of 40 years of more	
Obesity	BMI >30 kg/m^2
Lower prelabour Bishop score	
Macrosomia	

Table 2 Risk factors for uterine rupture in VBAC[3]

4.1.3 Risks to fetus with VBAC

A trial of labour after prior caesarean delivery is associated with greater perinatal risk than is elective repeated caesarean delivery without labour, although absolute numbers are low[5].

The risk of hypoxic ischaemic encephalopathy (HIE) (which may be explained to women as 'brain injury of varying severity caused by low oxygen to baby's brain in labour') is 8 in 10 000 (0.08%) compared with <1 in 10 000 (<0.01%) with ERCS. 60% of cases of HIE in VBAC are associated with uterine rupture[3]. It should be explained that in both types of birth, this complication is rare.

The risk of delivery- related perinatal death with VBAC is 4 per 10 000 (0.04%). This is comparable to the risk for nulliparous women in labour[3].

4.1.4 Contraindications to VBAC

Contraindication	Comment
Previous Uterine Rupture	There is limited observational data, but a higher uterine rupture risk (5% or higher) of recurrent uterine rupture with labour is reported. Repeat elective caesarean section is recommended.
Previous inverted T or J incisions, low vertical uterine incisions or significant inadvertent uterine extension at the time of primary caesarean	Insufficient evidence to support to the safety of VBAC in these circumstances. Repeat elective caesarean section is recommended.
Previous classical uterine incision	VBAC is contraindicated due to the high risk of uterine rupture[6]. Repeat elective caesarean section is recommended.
Previous uterine surgery	e.g. laparoscopic or abdominal myomectomy. Particularly where the uterine cavity has been breached, there is uncertainty if women are at increased risk of rupture. Women who have had such uterine surgery should be considered to have delivery risks at least equivalent to those of VBAC and managed similarly in labour. Especially in cases where the uterine cavity has been breached, repeat elective caesarean section is recommended.
Placenta praevia	This is a contraindication to vaginal delivery. Repeat elective caesarean section is strongly advised.

Table 3 Contraindications to VBAC[3]

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4.2 Vaginal Birth After 2 Caesareans (VBAC2)

Women who have had two or more prior lower segment caesarean deliveries may wish to discuss VBAC. They should receive counselling by a senior obstetrician[3] (senior registrar or consultant) and a joint decision made following review of the previous births and discussion of the risks and benefits.

Induction or augmentation of labour with prostaglandins or oxytocin should not be offered to women with more than one previous caesarean section.

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4.2.1 Counselling women considering VBAC2

A prospective multicentre observational study (2006) showed there was no significant difference in the rates of uterine rupture in VBAC with two or more caesarean births (9/975, 0.9%) compared with a single prior caesarean birth (115/16.915, 0.7%. P=0.37)[7]. Observational studies concur that success rates for VBAC are comparable with single or multiple previous caesarean births (71% successful VBAC with 2 previous caesarean sections)[3]. It is important to note that more than half of the women with two previous caesarean deliveries had also had a previous vaginal birth, and 40% had a previous VBAC. Caution should be applied when extrapolating these data to women with no previous vaginal delivery.

A systematic review[8] in 2010 suggested women considering trial of labour after two caesarean sections should be counselled using the data in Table 4.

Outcome	**VBAC2**	**Repeat caesarean section (RCS: 3rd caesarean)**	**Statistical significance**
Success Rate	71.1%	-	
Rate of Uterine Rupture	1.36%	-	
Maternal morbidity	Comparable to repeat caesarean delivery (i.e. 3rd caesarean)	Comparable to VBAC2	
Rate of hysterectomy	0.4%	0.63%	Non significant difference, P=0.63
Blood transfusion	1.68%	1.67%	Non significant difference, P=0.86
Febrile morbidity	6.03%	6.39%	Non significant difference, P=0.27

Neonatal morbidity	Insufficient data to draw valid conclusions	Insufficient data to draw valid conclusions	

Table 4 Outcomes of VBAC2 compared with Repeat Caesarean Section (RCS) in women with 2 previous caesarean sections[8]

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4.3 Repeat Elective Caesarean Section (ElCS)

This may be offered to any woman who has had 1 or more previous caesarean sections. The risk of uterine rupture with repeat ElCS is extremely low (less than 0.02%[3]).

Previous operation notes should be reviewed to identify surgical risks associated with repeat caesarean section. These will be specific to each individual. Where the previous caesarean section was anything other than uncomplicated, a copy of the operation note should be made and placed in the woman's handheld notes.

Women should be made aware that increasing numbers of caesarean sections increase surgical risks in future, including an increased risk of adhesions, organ damage and hysterectomy. The risk of placenta praevia and accreta also increases with repeat caesarean sections. Considerate exploration of a woman's planned family size should take place, and VBAC should be considered for those wishing to have multiple future pregnancies.

ElCS is recommended if there are 3 or more previous caesarean births.

4.3.1 Fetal risks with ElCS

There is an increased risk of transient respiratory morbidity requiring admission to the neonatal unit with ElCS (4-5%; 6% if the deliver is performed at 38 instead of 39 weeks)[3]. This is compared to a risk of 2-3% with VBAC.

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5 Antenatal counselling of women with 1 previous caesarean section

Below is the VBAC Counselling Proforma, to be completed in antenatal clinic.

Counselling at first antenatal clinic appointment

	Likelihood	
VBAC		
Successful VBAC (1 previous caesarean delivery, no previous vaginal birth)	72-75%	□
If at least one previous vaginal birth	85-90%	□
Risk of uterine rupture	0.5%	□
Blood transfusion	2%	□
Third or fourth degree tears	5%	□
Transient breathing problems for baby	2-3%	□
Hypoxic ischaemic encephalopathy (HIE), usually associated with uterine rupture - RARE.	0.08%	□
Delivery on Consultant Led Unit (CLU)		□
Continuous electronic fetal monitoring in labour		□
Repeat ElCS		
Longer procedure, with increased risk of organ damage, due to previous scarring		□
Longer recovery compared with successful VBAC		□
Increased likelihood of placenta praevia/morbidly adherent placenta in future pregnancies		□
Blood transfusion	1%	□
Transient breathing problems for baby	4-6%	□
Hypoxic ischaemic encephalopathy (HIE) - RARE	<0.01%	□
RCOG VBAC Information Leaflet Provided		□
Contraception discussed		□
Planned mode of delivery:		
VBAC		□
Repeat ElCS		□
Undecided		□
Preterm labour or spontaneous labour prior to Repeat ElCS:		
VBAC		□
Emergency caesarean section		□
Depends on stage of labour (document in comments below)		□
Comments:		

Review 36-39 weeks

VBAC		□
Postnatal Contraception Discussed		□
Induction of labour if does not labour spontaneously		
2- to 3-fold increase in risk of uterine rupture		□
1.5-fold increased risk of emergency caesarean section		□
Stretch and sweep offered		□
Vaginal examination findings:		
Gestational Age at IOL:		
IOL discussed with consultant/senior registrar		□
IOL booked		□
IOL information leaflet provided		□
Instructions for prostaglandins/oxytocin:	**Yes**	**No**
For Propess	□	□
For mechanical induction (ARM, Foley catheter or Dilapan, please specify)	□	□
ARM □ Foley catheter □ Dilapan □		
For oxytocin following ARM	□	□
Comments:		

Repeat ElCS		
Elective caesarean booked at 39+ weeks gestation		□
If planned caesarean prior to 39 weeks, antenatal corticosteroids considered		□
Postnatal contraception discussed		□
Comments:		

5.1 Birth Choices Clinic

5.1.1 Criteria for referral to birth choices

- Undecided mode of birth
- Previous traumatic birth requiring debriefing
- Women opting to birth outside of the obstetric unit following 1 or more previous LSCS
- Women requesting gentle / natural LSCS

5.1.2 Women opting for birth on the MLU or home following 1 or more LSCS

Women should be referred to birth choices for a discussion on place of birth. A detailed intrapartum plan should be developed in conjunction with the woman and her birth partner. This should be filed in the hand held notes. An electronic version should be attached to the E3 (Euroking) record and communicated to the senior midwifery and obstetric team.

Women should be counselled regarding the risks and benefits of birth outside of the obstetric unit. This should include all of the available options for place of birth.

Following discussion the woman's choices should be respected.

The birth outside the Obstetric Unit (OU) proforma should be completed with the women, signed and filed in the maternal records.

Women birthing outside of the OU will receive care in line with All Wales Normal Labour Pathway.

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6 Induction of Labour (IOL) in women undergoing VBAC

Induction of labour should follow the processes outlined in the trust Induction of Labour guideline (Flowchart 4, pp 11 of Induction of Labour guideline).

Women undergoing IOL with VBAC are not suitable for outpatient induction of labour. Provided there are no risk factors requiring delivery suite induction, IOL with VBAC may take place on the induction ward.

Mechanical induction with ARM, Foley's catheter or Dilapan is the preferred method of induction in these patients. Propess 10mg for 24 hours may be used, if agreed by the consultant or senior obstetrician booking the induction of labour.

Induction of labour should not be offered to women having VBAC2.

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7 Intrapartum care

It is recommended that labour and delivery should take place on the consultant led unit, with continuous electronic fetal monitoring. A full blood count and group and save should be sent on admission in labour, and suitability for electronic issue confirmed. Individual assessment should be made regarding the need for IV access. Women undergoing VBAC are at increased risk of requiring blood transfusion.

Care should be in line with the Intrapartum Care guideline.

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8 References

1. GOV.WALES. Maternity statistics | GOV.WALES. (2018). Available at: https://gov.wales/maternity-statistics. (Accessed: 27th May 2020)
2. NIH. NIH Consensus Development Conference Statement on Vaginal Birth After Caesarean: New Insights. in (National Institutes of Health, 2010).
3. RCOG. *Birth after Previous Caesarean Birth (Green-top Guideline No. 45)*. (2015).
4. Kok, N. *et al.* Sonographic measurement of lower uterine segment thickness to predict uterine rupture during a trial of labor in women with previous Cesarean section: a meta-analysis. *Ultrasound Obstet. Gynecol.* **42**, 132–9 (2013).
5. Landon, M. B. *et al.* Maternal and perinatal outcomes associated with a trial of labor after prior cesarean delivery. *N. Engl. J. Med.* **351**, 2581–9 (2004).
6. Greene, R. A., Fitzpatrick, C. & Turner, M. J. What are the maternal implications of a classical caesarean section? *J. Obstet. Gynaecol.* **18**, 345–7 (1998).
7. MB, L. *et al.* Risk of Uterine Rupture With a Trial of Labor in Women With Multiple and Single Prior Cesarean Delivery. *Obstet. Gynecol.* **108**, 12–20 (2006).
8. Tahseen, S. & Griffiths, M. Vaginal birth after two caesarean sections (VBAC-2)-a systematic review with meta-analysis of success rate and adverse outcomes of VBAC-2 versus VBAC-1 and repeat (third) caesarean sections. *BJOG* **117**, 5–19 (2010).
9. NICE Clinical Guidelines: Caesarean Section. November 2011.

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9 Appendix: Printable Version of the VBAC Counselling Proforma

Starts on next page.

Patient Addressograph

Counselling at first antenatal clinic appointment

	Likelihood	
VBAC		
Successful VBAC (1 previous caesarean delivery, no previous vaginal birth)	72-75%	□
If at least one previous vaginal birth	85-90%	□
Risk of uterine rupture	0.5%	□
Blood transfusion	2%	□
Third or fourth degree tears	5%	□
Transient breathing problems for baby	2-3%	□
Hypoxic ischaemic encephalopathy (HIE), usually associated with uterine rupture - RARE.	0.08%	□
Delivery on Consultant Led Unit (CLU)		□
Continuous electronic fetal monitoring in labour		□
Repeat ElCS		
Longer procedure, with increased risk of organ damage, due to previous scarring		□
Longer recovery compared with successful VBAC		□
Increased likelihood of placenta praevia/morbidly adherent placenta in future pregnancies		□
Blood transfusion	1%	□
Transient breathing problems for baby	4-6%	□
Hypoxic ischaemic encephalopathy (HIE) - RARE	<0.01%	□
RCOG VBAC Information Leaflet Provided		□
Contraception discussed		□
Planned mode of delivery:		
VBAC		□
Repeat ElCS		□
Undecided		□
Preterm labour or spontaneous labour prior to Repeat ElCS:		
VBAC		□
Emergency caesarean section		□
Depends on stage of labour (document in comments below)		□
Comments:		

Review 36-39 weeks

VBAC □
Postnatal Contraception Discussed □

Induction of labour if does not labour spontaneously
2- to 3-fold increase in risk of uterine rupture □
1.5-fold increased risk of emergency caesarean section □
Stretch and sweep offered □
Vaginal examination findings:

Gestational Age at IOL:

IOL discussed with consultant/senior registrar □
IOL booked □
IOL information leaflet provided □

Instructions for prostaglandins/oxytocin:	**Yes**	**No**
For Propess	□	□
For mechanical induction (ARM, Foley catheter or Dilapan, please specify)	□	□
ARM □ Foley catheter □ Dilapan □		
For oxytocin following ARM	□	□

Comments:

Repeat ElCS
Elective caesarean booked at 39+ weeks gestation □
If planned caesarean prior to 39 weeks, antenatal corticosteroids considered □
Postnatal contraception discussed □
Comments: