1. Introduction and who the guideline applies to:

This guideline is intended for use by obstetric, midwifery, anaesthetic, pharmacy and ultrasonography staff involved in the antenatal care of women with a breech presentation.

**Scope - Intrapartum Breech:**

The recommendations contained in the guideline for the management of intrapartum breech presentation is intended for use at the Leicester Royal Infirmary and Leicester General Hospital, and is not intended for guidance in births at St Mary’s Birth Centre, the alongside Birth Centres or Home Births.

**Related UHL documents:**

Policy for Consent to Examination or Treatment

Fetal Heart Rate Monitoring in Labour

BBA/Home birth – Risk Assessment and Management within the Stand Alone Birth Centre and in the Community Setting

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## 2. Guidance:

### Antenatal Management of Breech Presentation

<table>
<thead>
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<th>Recommendations:</th>
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<td>1. If the fetus is found to be persistently presenting by the breech at the 36 week assessment, then the midwife or doctor should refer the woman immediately to the appropriate clinic.</td>
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<td>2. When the presentation scan is performed and breech presentation is confirmed the following should be checked: placental site, liquor volume, and the nature of the breech presentation (extension / flexion of the fetal head).</td>
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<td>3. In the absence of contraindications, all women with a breech presentation at 36 weeks and above should be offered the option of external cephalic version.</td>
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<td>4. Where external cephalic version is declined, contraindicated or unsuccessful then the woman and her partner should be counselled in an informed and unbiased manner regarding vaginal delivery and caesarean section.</td>
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<td>5. An ultrasound will be performed after admission by the obstetric specialist registrar prior to the caesarean section.</td>
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Recommendation One:

If the fetus is found to be persistently presenting by the breech at the 36 week assessment, then the midwife or doctor should refer the woman immediately for an ultrasound scan.

- Presentation of the fetus should be recorded on each antenatal assessment from 28 weeks gestation onwards.
- There is no benefit from presentation scan before 36 weeks gestation.
- There is no evidence that postural management alone promotes spontaneous version to breech.  

Recommendation Two:

When the presentation scan is performed and breech presentation is confirmed the following should be checked: placental site, liquor volume, and the nature of the breech presentation (extension / flexion of the fetal head).

- Fetal posture is dynamic. The diagnosis of a footling breech antenatally does not necessarily reflect the subsequent presentation in labour. With contractions, it may easily convert to a flexed breech. Similarly, the finding of an extended fetal neck on one antenatal ultrasound does not exclude vaginal delivery. However, persistent star-gazing would be concerning.
- Estimated fetal weights should be interpreted in light of the woman’s size and past obstetric history.

Recommendation Three:

In the absence of contraindications, all women with a breech presentation at 36wks and above should be offered the option of external cephalic version.

See section for External Cephalic Version of Breech Presentation at Term.
Recommendation Four:

Where external cephalic version is declined, contraindicated or unsuccessful then the woman and her partner should be counselled in an informed and unbiased manner regarding vaginal delivery and caesarean section.

Women should be informed that planned caesarean section leads to a small reduction in perinatal mortality compared with planned vaginal breech delivery. Any decision to perform a caesarean section needs to be balanced against the potential adverse consequences that may result from this.

- Women should be informed that the reduced risk is due to three factors: the avoidance of stillbirth after 39 weeks of gestation, the avoidance of intrapartum risks and the risks of vaginal breech birth, and that only the last is unique to a breech baby.

- If a couple opt for elective caesarean section, this should not be performed before 39 completed weeks of gestation. This ensures minimal risk of respiratory dysfunction post-delivery and also allows for spontaneous version to occur.

- Women should be informed that when planning delivery for a breech baby, the risk of perinatal mortality is approximately 0.5/1000 with caesarean section after 39+0 weeks of gestation; and approximately 2.0/1000 with planned vaginal breech birth. This compares to approximately 1.0/1000 with planned cephalic birth.

  - In the Canadian trial of the management of breech presentation at term, an elective caesarean section reduced the risk of neonatal harm or death by two-thirds overall. Even when the Canadian Trial investigators attempted to optimise the conditions for attempted vaginal breech delivery, a two-fold increase in neonatal morbidity and mortality remained.

  - The PREMODA study followed much stricter case selection than the term breech trial and their findings where no significant difference for the combined outcome of fetal mortality and serious morbidity. Only a 5min apgar score of <4 was significantly more in the planned vaginal group.

  - Strict selection of appropriate pregnancies and skilled intrapartum care may help reduced some of the risks of a planned vaginal breech birth. Women also need to be aware that vaginal breech birth increases the risk of low apgar scores but has shown no increased risk of long term morbidity.

  - The Term Breech Trial was flawed by case selection, bigger babies in the vaginal birth group, recruitment occurring in labour, clinician experience and miscategorisation of neonatal morbidity.
Vlemmix et al suggested that there was a shift towards elective caesarean section. However, 40% women attempted vaginal birth. To prevent one perinatal death 338 caesarean sections would need to be done. The relative safety of an elective caesarean should be weighed against the consequences of a scarred uterus in future pregnancies.

Women should be advised that a planned vagina breech delivery is not advised if:

- Hyperextended neck on ultrasound.
- High estimated fetal weight (more than 3.8 kg).
- Low estimated weight (less than tenth centile).
- Footling presentation.
- Evidence of antenatal fetal compromise

**Recommendation Five:**

An ultrasound will be performed after admission by the obstetric specialist registrar prior to the caesarean section.

- The woman should be made aware of the reason for this scan and that if the fetus has turned to a cephalic presentation, there may no longer be an indication for a caesarean section. The clinician at booking should discuss and document the subsequent plans for delivery if this is the case.
# Recommendations:

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<td>1.</td>
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<td>2.</td>
<td>Maternal and fetal wellbeing should be assessed immediately before and after the ECV</td>
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<td>3.</td>
<td>ECV should be carried out on the designated rooms</td>
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<td>4.</td>
<td>Tocolytics may be offered to women undergoing ECV as it has been shown to increase the success rate</td>
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<td>Babies from women with a successful ECV require a postnatal hip scan</td>
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**Recommendation One:**

In the absence of contraindications, ECV should be offered to all women with a breech presentation at term

- Breech presentation at term is associated with an increased risk to both the fetus and the mother compared to a cephalic presentation. The aim of external cephalic version is to reduce the number of fetuses presenting as a breech at term, and therefore to reduce the number of operative deliveries. The benefits are maternal (reduced operative morbidity and greater informed choice), and to the Trust (reduced costs from caesarean sections)

- Women with a breech baby should be informed that attempting ECV lowers their chances of having a caesarean section by 38%.\(^4\)

The success rate covered nationally is 50% 40% in primips and as high as 60% in multips\(^4\)
- **Inclusions**
  - Singleton pregnancy
  - Breech presentation
  - \(>36\) wks in nulliparous
  - \(>37\) wks in multiparous

- **Exclusions**
  - Contraindication to vaginal delivery
  - Multiple pregnancy (except for delivery of second twin)
  - Antepartum haemorrhage within the last 7 days
  - Placenta praevia
  - Abnormal cardiotocography/dopplers
  - Major uterine anomaly

- **Circumstances necessitating further consideration, and discussion with the Consultant**
  - Severe fetal abnormality
  - Small for gestational age fetus with abnormal Doppler parameters
  - Significant oligo or polyhydramnios
  - Uterine malformation
  - Previous caesarean section (women with 1 previous caesarean birth who would be suitable for VBAC should be offered ECV)

- **The woman should give written consent for the procedure (please refer to UHL Consent Policy)**

**Recommendation Two:**

Maternal and fetal wellbeing should be assessed immediately before and after the ECV

- Baseline maternal observations should be undertaken
- A CTG using Dawes Redman criteria should be undertaken to confirm a normal fetal heart rate pattern before and after the ECV, regardless of success or failure of the procedure. Where a CTG using Dawes Redman criteria is not available a CTG should be done for 30 mins.
- The risk of an emergency caesarean section immediately following the procedure of ECV is 0.3-0.5% with no excessive perinatal morbidity or mortality.  
  - Any CTG abnormality must be reviewed by an obstetric registrar or consultant.

- **Other monitoring**
  - Observation for uterine irritability, contractions or vaginal bleeding.
  - Kleihauer test should be taken 15 minutes after the procedure for all Rhesus negative women.
  - Ensure all women who are Rhesus negative receive Anti-D.
  - The woman can be discharged home once stable. There is no support for routine practice of immediate induction of labour.
  - If ECV is unsuccessful, a plan for subsequent care should be made on an individual basis. Women who opt for caesarean section after unsuccessful ECV should be consented and booked for caesarean section

### Recommendation Three:

ECV should be carried out in suitably designated room

Designated rooms should have equipment for monitoring and facilities for immediate delivery are close. A room equipped with an ultrasound scanner, cardiotocograph and resuscitation equipment should be reserved for each woman undergoing the procedure.

A meta-analysis by Grootscholten et al which looked out the risk of complications with external cephalic version. They pooled the results of 84 studies which involved 12,955 women.

### Complications:
- Vaginal bleeding 0.34%
- Transient CTG abnormalities 4.7%
- Cord prolapse 0.18%
- Ruptured membranes 0.2%
- Fetomaternal haemorrhage 0.9%
Routinely, women are referred to the Breech clinic and ECV’s are performed there as the complication rate is low and there is easy recourse for caesarean birth if required. See Appendix for emergency pathway.

**Recommendation Four:**

RCOG suggest that the use of tocolysis with beta-sympathomimetics may be offered to women undergoing ECV as it has been shown to increase the success rate.

- Tocolysis has been to improve the success rate of external cephalic version and to reduce the complication rate associated with the procedure. ⁴

- Terbutaline is the drug of choice for tocolysis. It can be used routinely or where an initial attempt at ECV without tocolysis has failed.

- The use of tocolysis should be considered where an initial attempt at ECV without tocolysis has failed ⁴

- Women should be advised of the adverse effects of tocolysis with beta-2 agonist. These include: palpitation, tachycardia, allergic reaction, hypotension, fine tremor, nervous tension, headache, arrhythmias, myocardial infarction and peripheral dilatation.

**RECOMMENDED TOCOLYTIC REGIME:**

- Terbutaline 250 micrograms subcutaneously ⁴

There is not enough data or evidence to support the routine use of regional analgesia in all women undergoing ECV.
Recommendation Five:

Babies from women with a successful ECV require a postnatal hip scan.

- Babies who have been in breech presentation ≥ 36 weeks are at increased risk of congenital dislocation of the hip.

- Therefore as well as for any baby born at term breech presentation babies born after a successful ECV need to have a hip ultrasound.

- This should be documented in the notes by the person who performed the ECV and a Paediatric alert sent.
N.B: This guideline covers breech presentation at the Leicester Royal Infirmary and Leicester General Hospital, and is not intended for guidance in births at St. Mary's, Melton Mowbray, alongside birth centres or home births.

Recommendations:

- If a woman with a breech presentation presents on labour ward in inform the registrar and consultant on call.
- Site IV cannula and take blood for Full Blood Count and Group & Save.

Clinical Assessment:

- If no documented intrapartum management plan; one should be compiled by the registrar who has assessed the pelvis, after consultation with the consultant. This plan should include advice regarding the timing of amniotomy
- VE should be performed as soon as spontaneous rupture of membranes (SRM) occurs to exclude cord prolapse.
- If there is SRM without contractions in a woman who has planned vaginal delivery, she should be reviewed by the consultant on the next labour ward round.
- Should a woman booked for an elective caesarean section be admitted in spontaneous labour, then the mode of delivery should be reassessed in light of the clinical information available and parental wishes. With the exception of precipitate delivery, any changes to the original delivery plan should be discussed with the consultant on call.

Consider appropriate pain relief

An epidural allows the woman to remain comfortable, particularly if manipulations or instrumental assistance is required. It also allows an emergency caesarean section to be performed with greater speed. Therefore epidural analgesia is recommended, but there is no evidence that it is essential.
Fetal monitoring:

- Significance of meconium – it cannot be assumed that this is benign or “normal”. Meconium is not usually passed until the active second stage. Before then, meconium should be given the same significance as in cephalic deliveries.

Second Stage:

- Second stage of labour must be confirmed by vaginal examination.
- Delivery should be undertaken in a position that is accepting by the women and the person conducting the delivery.
- However recent evidence suggests using semi recumbent or all fours position. If there is difficulty with delivery or manoeuvres are required alternative positions may be considered. (Most obstetricians will require that the delivery be conducted in a dorsal position.) If the on-call specialist registrar does not have this level of experience, then the on-call consultant should be present.4
- Allow for descent of the breech, the woman may involuntarily push but should not be actively encouraged until the breech is visible at the introitus.4
- If delivery does not appear imminent after a maximum of one hour of pushing, consider caesarean section.
- Delivery from buttocks (intertrochanteric diameter) to head should be approximately 6 mins (delivery from umbilicus to head typically 3mins)4
- Evaluate the need for an episiotomy to facilitate delivery of the head. This should be done when the fetal buttocks are distending the perineum and the anus becomes visible.
- A paediatrician must be available at delivery and the anaesthetist must be present on labour ward.
- Umbilical artery and vein pH should be performed on all breech deliveries.
- Prior to discharge a hip scan should be arranged for the baby.
UNDIAGNOSED BREECH IN LABOUR:

- Although much emphasis is placed on adequate case selection prior to labour, assessment of the undiagnosed breech in labour by experienced medical staff can allow safe vaginal delivery. 5
- Incidence of undiagnosed breech in labour is 25% 4
- Greater chance of vaginal delivery than breech diagnosed before labour.
- When deciding on mode of delivery, the following should be considered:
  - Parity
  - Gestation
  - Past obstetric history
  - Absence of footling presentation (can only be determined by vaginal examination)
  - Clinical estimate of fetal weight
  - Wishes of the woman and her partner

PRETERM BREECH 24 weeks – 36 weeks

25% of preterm breech deliveries are iatrogenic and due to maternal or fetal complications6. In women who need planned delivery due to maternal or fetal compromise, elective caesarean section is recommended in a viable fetus of breech presentation.

The routine performance of a caesarean section for preterm breech should not be recommended. The mode of delivery of a spontaneous, preterm labour in breech position should be made after clinical evaluation and discussion with the woman. The stage of labour, the type of breech, fetal wellbeing and the operator skill is key in this decision-making process.

A Cochrane review comparing the effects of caesarean section versus vaginal breech delivery, found no significant difference in immediate outcomes and follow-up to childhood. However data was very limited7

Stabilising Induction

There is limited data on stabilising induction; however ECV followed by a stabilising induction is a reasonable course of action in unstable lie where delivery is warranted.

The patient should be made aware of the risk of cord prolapse, transverse lie in labour and fetal heart abnormalities.

INTRAUTERINE DEATH AND BREECH PRESENTATION:

- Discuss with the registrar and consultant so an individualised care plan can be made taking into account the clinical history.
Pathway for Emergency Crash Bleep when ECV’s are done in clinic

1. Emergency situation during ECV procedure
2. Emergency buzzer pulled in clinic
3. When help arrives, ring Delivery Suite on Ext 2120 explaining the emergency situation
4. Patient being taken to Delivery Suite
5. Ring reception on Ext 5551 for the lift to be called
3. **Education and Training:**

- All staff who work within the maternity setting will attend an annual (12 months) skills drills day incorporating theory and practice in the management of vaginal breech birth as a minimum (MOT)

4. **Supporting References:**

**Antenatal:**


**ECV:**


6. **Key Words**

Breech ECV

**CONTACT AND REVIEW DETAILS**

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<thead>
<tr>
<th>Guideline Lead (Name and Title):</th>
<th>Executive Lead:</th>
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<tr>
<td>N Archer, Consultant Obstetrician</td>
<td>A Furlong</td>
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**Details of Changes made during review:** General update. Reduced in size

NB: Paper copies of guidelines may not be the most recent version; The definitive version is in the Policy and Guidelines Library.