Frimley Health
NHS Foundation Trust

Management of the Breech presentation including External Cephalic Version

Key Points

- The success rate of ECV is approximately 50%, with the use of tocolysis with betamimetics improving the success rate
- Parents should be informed that ECV after one caesarean delivery appears to have no greater risk than with an unscarred uterus.
- Labour after ECV is associated with a slightly increased rate of caesarean section and instrumental delivery when compared with spontaneous cephalic presentation
- The obstetrician and the anaesthetist should be informed of all vaginal breech deliveries,
- A Consultant Obstetrician should be present for vaginal breech deliveries, though any appropriately trained clinician in vaginal breech birth may support the birth.

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Abbreviations

CTG	Cardiotocograph
ECV	External cephalic version
EFM	Electronic fetal monitoring
IOL	Induction of labour
LSA	Left sacral anterior
LSCS	Lower segment Caesarean section
PPH	Postpartum haemorrhage
RSA	Right sacral anterior
USS	Ultrasound scan
VE	Vaginal examination

Contents

Introduction

The incidence of breech presentation decreases from about 20% at 28 weeks of gestation to 3-4% at term, as most babies turn spontaneously to the cephalic presentation.

ECV reduces the rate of breech presentation at birth and therefore the chances of Caesarean section[3,7]. Women with a breech presentation should be offered an ECV unless there is an absolute contraindication. Risks and benefits of a planned caesarean section versus planned vaginal birth should be discussed with women if an ECV has failed, contraindicated, or declined. This will enable an informed choice to be made.

Vaginal breech birth is associated with increased neonatal morbidity and mortality compared to cephalic presentation. Patients should be assessed carefully before selection for vaginal breech birth. Planned caesarean section leads to a small reduction in perinatal mortality compared with planned vaginal breech birth. A discussion should take place about the potential adverse consequences that may result from this.

Delivery by caesarean section should be specifically advised for women with unfavourable clinical features as planned vaginal breech birth is likely to be associated with increased perinatal risk.

Moxibustion

May be offered from 34 weeks gestation, once appropriately discussed with the patient. Please Refer to the Moxibustion Guideline.

External Cephalic Version

External cephalic version (ECV) is the manipulation of the fetus, through the abdomen, to a cephalic (head down) presentation. ECV reduces the rate of breech presentation at birth and reduces the chance of Caesarean section.

All women with an uncomplicated breech presentation should be offered ECV.

The Royal College of Obstetrics & Gynaecology (RCOG) recommends offering ECV to primiparous women from 36^{+0} and multiparous women from 37^{+0}. ECV done from 34^{+0} to 35^{+6} has a higher success rate and a lower Caesarean section rate than later ECV. However, this does come with a slightly increased rate of pre-term deliveries with no difference in serious neonatal or maternal morbidity or mortality[1,3] ECV before 36^{+0} weeks should only be offered by a Consultant Obstetrician, with agreement from the person undertaking the ECV.

Pre-requisites

Women should be counselled regarding the risks and benefits of the procedure and given a leaflet with all the appropriate information. Verbal consent should be obtained for the procedure.

Contraindications

Absolute *contraindications*

- Where Caesarean section is required for another reason, e.g., placenta praevia
- Abnormal CTG
- Major uterine abnormality
- Ruptured membranes
- Multiple pregnancy (except for delivery of the second twin)
- Antepartum haemorrhage within the last 7 days (not spotting/streaks of blood)

- Rhesus isoimmunisation

***Relative** contraindications*

- Small-for-gestational-age fetus with abnormal Doppler parameters
- Pre-eclampsia
- Oligohydramnios
- Major fetal anomalies (it could be appropriate to offer ECV to avoid LSCS if the baby has poor prognosis)
- Unstable lie./Transverse lie/Oblique lie
- Non reassuring fetal monitoring

ECV for transverse or unstable lie should only be offered after careful discussion of the risks of reversion and cord prolapse with the patient and with agreement from the person undertaking the ECV. These may need to be coupled with same day/same admission induction of labour, so should not be booked through the Breech Clinic process outlined below. Instead, the booking should be through the process used for Labour Ward based Induction of Labour. If there is agreement, then these should be booked from 39+0/40 onwards to reduce the risk of reversion before birth, unless there are other indications for an earlier birth.

ECV after one caesarean delivery appears to have no greater risk than with an unscarred uterus[2,5] so this can be offered.

Counselling

Success rates of ECV vary, but in a large series 47% of women following an ECV attempt had a cephalic presentation at birth. Factors that affect the success rate are outlined below, but it is difficult to predict in individual cases.

Factors that enhance success rate	Factors that impede success
AFI >10cm	Anterior, lateral or cornual placenta
Posterior placental location	Reduced amniotic fluid volume
Experienced ECV clinician	Descent of the breech into the pelvis
Unengaged presenting part	Female sex
Oblique or transverse lie – although less likely to be stabilise and more likely to revert from cephalic presentation	Fetal head not palpable
	Firm abdominal muscles
	Frank Breech presentation
Multiparity	Low birth weight
	Nulliparity
	Obesity
	Persistent Breech, including failed previous ECV

ECV has a low complication rate. Immediate emergency caesarean section can be required due to presumed fetal compromise in 1 in 200 cases. ECV can be associated with fetal bradycardia and a non-reactive CTG; they are usually transient and resolve spontaneously. A few case reports exist of complications such as placental abruption, uterine rupture and fetomaternal haemorrhage. Randomised controlled trials have reported no evidence of an increase in neonatal morbidity and mortality. Of the 3 options for breech babies (ECV, Elective LSCS and Vaginal breech birth), ECV appears to be the safest option for the parent and the fetus.

ECV does not appear to promote labour.

Booking

Frimley Park site: These are booked via the Labour Ward Snapboard in the ECV slots, on days when and ECV trained Obstetric Consultant is available.

Wexham Park site: ECV is undertaken or arranged in the breech clinic, which is booked via the Epic Snapboard

A second attempt can be offered if the first is unsuccessful although the success rate is lower than for the initial attempt. If there aren't enough ECV slots available in a given week, then 1st attempts will be given priority and 2nd attempts may need to be cancelled/postponed

Analgesia

There is no strong evidence for the use of any analgesia options during ECV, but patients may be asked to take a single dose of paracetamol about an hour before they expect to attend for the procedure. Entonox does not improve pain scores or the success rate of ECV, but can be offered.[10].

Epidural may be considered for stabilising inductions if a plan is made to immediately follow the ECV attempt with ARM (or caesarean section if ARM is not possible), though this is not essential.

Procedure

ECV should be performed with ultrasound and cardiotocography (CTG) available and where emergency caesarean section can occur within 30 minutes.

An appropriately trained obstetrician or midwife should perform the procedure.

The fetal heart should be monitored on a CTG for at least 15 minutes prior to the ECV and 30 minutes after the procedure and both CTG's should be classified as normal by 2 independent clinicians (MW or Obstetrician) before continuous monitoring is ceased.

Ultrasound scan should be performed at least 2 weeks prior to ECV to assess presentation, fetal position, liquor volume, nuchal cord, and placental location. This can be in the ultrasound department or by the person undertaking the ECV if they have appropriate ultrasound training.

If nuchal cord is identified, then the ECV operator may assess suitability for ECV on an individual basis. If ECV is deemed unsuitable, then they may plan for reassessment and ECV attempt 1 week later.

Tocolysis with beta-2-agonists may be offered to women undergoing ECV as it has been shown to increase the success rate and should be considered where an initial attempt at ECV without tocolysis has failed.[6]

Women should be advised beta-2-agonists can cause transient maternal tachycardia, palpitations, tremor, and headache. The protocol is:

> Terbutaline 0.25mg or 0.5mg subcutaneously prior to ECV. Wait 15-20 minutes prior to commencing ECV.
>
> **Or**

A slow intravenous bolus of salbutamol 0.25mg either routinely or if an initial ECV attempt has failed. ECV can be commenced immediately.

Each attempt at ECV should last no longer than 5 minutes. The fetal heart should be auscultated between attempts.

ECV should be abandoned;

- after 3 unsuccessful attempts
- for fetal heart rate abnormalities or
- for maternal discomfort.

Care post ECV

Unsensitised Rh-negative women should be given Anti-D prophylaxis (500 units minimum) and have a Kleihauer test taken.

Following ECV women should be encouraged to contact maternity triage/MAC if they have any concerns or for reduced fetal movements, abdominal pain, or vaginal bleeding.

Following unsuccessful ECV, mode of delivery should be discussed including breech vaginal birth or elective Caesarean section. If the woman chooses elective Caesarean section, this should be booked from 39 weeks gestation, unless other factors are present requiring earlier delivery. If the woman chooses a breech vaginal birth, she should discuss this with a consultant midwife or obstetrician.

Following successful ECV women may either labour spontaneously or be offered induction of labour for the usual obstetric indications. When admitted in labour following a successful ECV an ultrasound scan should be performed to confirm presentation. Women should be informed of a reported increased incidence of emergency LSCS following ECV if they are considering delivery at home or in a midwife led unit[1]. A systematic review assessing the mode of delivery after a successful ECV found that these women were at increased risk for caesarean section and instrumental vaginal delivery compared with women with spontaneous cephalic pregnancies. However, they still had a lower rate of caesarean section following ECV (i.e., 47%) compared with the caesarean section rate for those with a persisting breech (i.e., 85%).

Birth planning

Caesarean section

Should be booked for 39+0/40 onwards unless there are other clinical reasons to deliver earlier. Consent should be completed at the time of booking, as per the Caesarean section Guideline. At this time the patient should be counselled that on the day of Elective Caesarean section they will have an ultrasound and if the fetus has reverted to cephalic presentation, then they will be discharged to aim for vaginal birth, with induction of labour (IOL) booked if clinically indicated. If they labour before their planned Caesarean section, then the management should be as per the Intrapartum Management section below, and may not always include and Emergency LSCS

Vaginal breech birth

Clinical factors regarded as unfavourable for vaginal breech birth

- Footling presentation.
- Estimated fetal weight more than 3.8kg
- Low estimated weight less than the 10th centile on Gap and Grow
- Hyperextended fetal neck in labour (diagnosed with ultrasound scan)

- Evidence of antenatal fetal compromise
- Fetal anomaly which may cause dystocia (i.e. macrocephaly)

The role of pelvimetry is unclear.

Twins

Recommendations for mode of delivery should be as per the Multiple Pregnancy Guideline. Where the first twin is cephalic and second twin is breech, routine Caesarean section is not required.

Intrapartum management

Diagnosis of breech presentation for the first time during labour should not be a contradiction for vaginal breech birth.

If diagnosed in labour a 2222 call should be put out to summon emergency assistance from the obstetric team and Obstetric Consultant should be made aware to attend.

A practitioner skilled in the conduct of labour with breech presentation and vaginal breech birth should be present at all vaginal breech births. A Consultant Obstetrician must also be present in supervising labour with a breech presentation or carrying out vaginal breech birth. All practitioners must have appropriate training, which should include simulated training.

Deliveries should not take place in the midwifery led unit.

Where a woman presents with an unplanned vaginal breech labour, management will depend on the stage of labour, whether factors associated with increased complications are found, availability of appropriate clinical expertise, the woman's wishes and informed consent.

When a woman presents near or in the active second stage of labour, a caesarean section should not be routinely offered. A discussion should be had with the woman about vaginal delivery versus caesarean section risks at this stage, and this should be clearly documented.

Women who are planning a vaginal breech birth and where time permits with unplanned vaginal breech birth the position of the fetal neck, legs and the fetal weight should be estimated using ultrasound.

Vaginal breech birth can take place on Labour Ward or in theatres at the discretion of the Consultant Obstetrician. If the delivery is on Labour Ward an anaesthetist and theatres must be informed. Birth in an operating theatre is not routinely recommended.

A member of the neonatal team should be present for all vaginal breech births.

The effect of epidural analgesia on the success of vaginal breech birth is unclear, but that is likely to increase the risk of intervention. An epidural also restricts women from being able to birth on all fours, which is the position that leads to less need for additional manoeuvres.

Continuous electronic fetal monitoring should be offered to women with a breech presentation in labour. If there is evidence of fetal compromise before the onset of active pushing, then vaginal breech birth should be abandoned.

Artificial rupture of membranes should be avoided due to the risk of cord prolapse. If spontaneous rupture of membranes occurs, then perform a vaginal examination to detect or exclude cord prolapse (UpToDate 2024)

We do not offer Induction of Labour with a Breech presentation at Frimley Health NHS Foundation Trust. Augmentation of slow progress with oxytocin should only be considered if the contraction frequency is low in the presence of epidural analgesia. Multiparous women who have gone into spontaneous labour, use oxytocin with caution, consider descent as well as cervical dilatation.

Women should be informed that adherence to a protocol for management reduces the chance of early neonatal morbidity.

Management of preterm breech

Women should be informed:

- Routine caesarean section for breech presentation in spontaneous preterm labour is not recommended.
- The mode of delivery should be individualised based on the stage of labour, type of breech presentation, fetal wellbeing, and availability of an operator skilled in vaginal breech birth. An Obstetrician should be present / conduct birth.
- When not in labour, planned caesarean section is usually recommended for preterm breech presentation where delivery is planned due to maternal/and or fetal compromise.

Mechanisms for Vaginal Breech birth
Remember – <u>Supporting physiological breech manoeuvres are required. Do not pull.</u>

Semi-recumbent or all-fours position may be adopted for delivery and will depend on maternal preference and experience of the attendant. If the all-fours position is adopted women should be advised that recourse to the semi-recumbent position may become necessary. When a woman is in all-fours, manoeuvres are less likely to be required. Routine lithotomy position is not appropriate, but if preferred by the delivering clinician, preparations for lithotomy may be made in advance to facilitate safe quick change of position.

Passive 2nd stage to allow descent may be allowed for up to 90 minutes. Active 2nd stage of labour with pushing should not commence until the breech is visible on the perineum. After this point, pushing should continue until birth, with or without the presence of contractions, as the uterus will be mostly empty so there is little benefit in waiting for contractions.

- **Delivery of the buttocks to delivery of the umbilicus should take <u>*no longer than 2 minutes*</u>**
- **Progress from delivery of the umbilicus to delivery of the head should take <u>*no longer than 3 minutes*</u>**

Delivery should be achieved within 7 minutes, or ASAP in the evidence of poor fetal condition. It is important that there is a scribe/timekeeper throughout calling out timings to avoid loss of situational awareness.

All obstetricians and midwives should be familiar with the techniques that can be used to assist vaginal breech birth. The choice of manoeuvres used, if required to assist with delivery of the breech, will depend on the individual experience / preference of the attending doctor or midwife.

When the presenting part is distending the perineum, an evaluation of the need for episiotomy should be made, particularly if there are CTG concerns just prior, or if there are delays at this stage.

If spontaneous progress is being made, a “hands off” approach can be continued. Once intervention is required (either due to poor progress or evidence of fetal compromise), then interventions should continue to expedite the birth. Tactile stimulation and traction on the fetus may result in reflex extension of the arms or head, so should be minimised. Manipulation of the cord should be minimised to avoid vasospasm.

The buttocks and pelvis will usually deliver in the sacro-transverse position and then restitute to the sacro-anterior position (bum-to-tum). If this does not occur by the time the nipples are delivered, or restitution to sacro-posterior occurs, then nuchal arm is likely and Løvset manoeuvre should be used, with the baby being handled by the bony prominences.

If the legs appear to be delaying progress, assist delivery by inserting a finger into the popliteal fossa, flex and abduct (Pinard manoeuvre). Do not however, assist with the legs routinely, as the feet may be stretching the perineum, which can help with the subsequent delivery of the head.

If the arms are flexed and appear to be delaying progress after the scapula is seen, then consider placing a finger in the elbow to bring the forearm down. If the fetal arms are extended or nuchal and the axilla can be seen, then perform Løvset manoeuvre to deliver the anterior arm. If this cannot be completed or is unsuccessful, then deliver the posterior arm directly. For nuchal arm (behind the neck), rotation of the fetus towards the affected arm may be needed to aim for the fetal face turned towards the maternal symphysis pubis.

Once the nape is visualised, flexion of the head is vital. This can be achieved by using the Mauriceau–Smellie–Veit manoeuvre: the middle finger of one hand applies pressure on the occiput with the index and ring fingers applying modest traction on the shoulders. The fetal body rests on the other hand with the index and ring fingers applying modest pressure on the maxillae. The aim is to deliver the head by flexion and the baby onto the maternal abdomen. An assistant may apply supra-pubic pressure to encourage flexion of the fetal head. There are often no contractions once the body has delivered and the head is in the pelvis, therefore the delivery of the head needs to proceed without waiting for a contraction.

If forceps are required for the after coming head, any available forceps except Wrigley’s forceps should be used. The baby’s body must be held up by an assistant without undue traction whilst the obstetrician applies the blades, and then the obstetrician should manoeuvre the instrument and the baby together as one. The midwife or another obstetrician will then guard the perineum or perform episiotomy if required as the head is delivered. Delivery should be slow and controlled.

Where there is head entrapment during a preterm breech delivery, lateral incisions at 10:00 and 02:00 of the cervix should be considered by a suitably qualified practitioner.

Obstructive delivery of the after-coming head may rarely need to be managed by symphysiotomy or Category 1 Caesarean section (Zavanelli Manoeuvre).

Paediatric follow up
All babies born in the breech position must have an outpatient appointment for ultrasound scan (USS) of the hips within 6 – 12 weeks to exclude congenital hip dislocation. If unstable hips are identified at the NIPE check arrange an urgent USS within two weeks.

Documentation
All details of care should be clearly documented, including details of counselling and the identity of all those involved in the procedures. A scribe should be appointed to record details of timings and procedures during the birth.

Auditable standards
- The proportion of women with a breech presentation who are offered ECV
- The success rate of ECV
- The complication rate following ECV
- The obstetrician and the anaesthetist are informed of all vaginal breech deliveries
- A consultant obstetrician is present for vaginal breech deliveries
- Paired cord blood samples are obtained for all vaginal breech deliveries
- Babies born in the breech presentation have an USS of the hips
- Documentation of discussion regarding mode of delivery
- Vaginal delivery rates in women planning vaginal breech delivery
- Vaginal breech births when diagnosed in labour or prior to planned CS date
- Rate of adverse neonatal and maternal outcomes following breech birth
- Percentage of staff who have undergone training in vaginal breech delivery

Monitoring compliance
This guideline will be subject to three yearly audit. The audit midwife is responsible for coordinating the audit. Results presented to the department clinical audit meeting. Action plans will be monitored at the quarterly department clinical governance meeting.

References

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Full version control record

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This guideline has been registered with the Trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt, contact a senior colleague or expert. Caution is advised when using guidelines after the review date.

This guideline is for use in Frimley Health NHS Foundation Trust hospitals only. Any use outside this location will not be supported by the Trust and will be at the risk of the individual using it.

Version History

Version	Date	Guideline Lead(s)	Status	Comment
1.0	27/09/2016	Lynne Sheen	Final	Approved at Obstetric and Gynaecology Clinical Governance
2.0	September 2020	Sarah Coxon	Final	Updated and approved at OGCGC with amendments on page 9 and 10. Amended and approved by Chair Miss A. Deans November.2020
3.0	October 2024	Dipika Aggarwal Charlotte Sandhu	Final	Combined ECV and Breech Presentation Guideline

Related Documents

Document Type	Document Name
Guideline	Multiple Pregnancy
Guideline	Caesarean Section
Guideline	Use of Moxibustion to Turn the Breech Baby