Document No: **1932078**

TITLE: Management of Breech Presentation

1. Statement/Purpose/Description

To provide guidance on management of breech presentation in the third trimester and in labour. Appendix A: In-depth Description of Breech Management.

2. Scope

All Lakes District Health Board medical and midwifery staff, Lead Maternity Carer's (LMC), and nursing staff working in the Birthing Unit or Perinatal Unit.

3. Definitions

ECV	External Cephalic Version
EFW	Estimated Fetal Weight
FHR	Fetal Heart Rate
LSCS	Lower Segment Caesarean Section
NBM	Nil by Mouth
SROM	Spontaneous Rupture of Membranes
USS	

Types of breech presentation – see Appendix B: Visual Aid for Breech Presentations:

- Frank: hips flexed, legs extended;
- Complete: hips and knees flexed, legs not below fetal buttocks;
- Footling: one or both feet presenting.

4. Procedure/Management

4.1 Diagnosis

Breech presentation occurs in 3-4% of term pregnancies and in 15% of pregnancies between 29-32 weeks. Twenty five percent of breech presentations will undergo spontaneous version after 35 weeks gestation and the likelihood of spontaneous version decreases with increasing gestational age.

4.1.1 Clinically, breech presentation should be suspected if:

- On abdominal palpation the presenting part is irregular or not ballotable;
- The head is not felt in the pelvis on vaginal examination;
- The fetal heart rate is recorded high in the abdomen;
- Thick meconium is present at the time of SROM;
- In the event of cord prolapse;
- Pre-term labour.

4.1.2 Diagnosis is also made by ultrasound. At the time of an ultrasound, the examination should include a review of possible causative factors, type of breech presentation, estimated fetal weight and liquor volume.

4.1.3 If diagnosis of a breech presentation is made in the second or early in the third trimester, a repeat USS is recommended to confirm persistence of breech presentation at 35-36 weeks.

4.2 Management – Breech Presentation Diagnosed Prior to Labour

4.2.1 As per the guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines) women diagnosed with a breech presentation <36^{+6} weeks gestation should be referred to Antenatal Clinic for a review with an Obstetrician. Women >37 weeks, contact the on call consultant.

- The LMC should discuss the management options and provide information for an ECV if there are no contraindications prior to this appointment so the woman can consider her options.
- The Obstetrician should discuss with the woman the role of ECV if there are no contraindications, and the recommendations for mode of birth Appendix C: In-depth Description of Obstetrician Counselling Session. This discussion should be fully documented in the clinical records along with the final mutually agreed plan for birth.

4.2.2 Women requesting a vaginal breech birth should be fully informed that there may be limited availability of staff and resources to facilitate this on the day of birth.

4.3 Management – Breech Presentation Suspected in Labour

4.3.1 Breech presentation suspected in labour should be referred immediately to the Obstetrician on call:

- Confirmation of presentation should be made by portable ultrasound by a suitably trained person;
- Continuous CTG monitor (scalp electrode can be applied to presenting breech, if required);
- Large Bore IV cannula FBC, Group and Hold;
- The woman should be NBM.

4.3.2 A discussion regarding the mode of birth in this context must occur between the Obstetrician, LMC and the Woman, with a discussion of the risks and benefits of each option by the Obstetrician. Caesarean section would usually be the recommended mode of delivery if patient is in the first stage of labour. Appendix D: In-depth Description of Multi-Carer/Patient Consultation. All aspects of this discussion must be fully and contemporaneously documented.

4.4 Management – Second Stage

4.4.1 If a Vaginal birth is felt to be the safest option in the clinical circumstances the following steps are recommended, noting that a Caesarean section should be considered if there is any delay in descent.

- Confirmation of full dilatation and position of breech.

- The consultant Obstetrician should be called and be present in the room.
- The Anaesthetist and theatre coordinator should be informed of the situation by the Obstetrician.
- Active pushing should not be encouraged until the presenting part is distending the perineum (up to 60 minutes of passive second stage is acceptable provided the CTG is normal).
- The Paediatrician should be called and be present in the room for the birth.
- Instrumental trolley should be readily available.
- Maternal positioning should be guided by what the birth attendant is most comfortable/experienced with.
- HANDS OFF THE BREECH!
- Additional manoeuvres Appendix E: Manoeuvres
- Active third stage recommended;
- Cord gases.

5. Equipment Used

- CTG
- Delivery pack
- Instrumental Trolley
- Sterile Gloves
- Neonatal Resuscitation Equipment

6. Points to Note

6.1 Causative factors for breech presentation include polyhydramnios, multiparity, multiple pregnancy, prematurity, uterine abnormalities e.g. bicornuate uterus, fibroids and fetal abnormalities e.g. hydrocephalus.

6.2 Babies who have been breech in utero are at risk for mild deformations such as frontal bossing, and torticollis and developmental dysplasia of the hip. Neonatal hip checks including ultrasound are required for all breech births.

7. Related Documentation

Lakes District Health Board EDMS 1255066 ECV Guideline

8. References

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Canterbury District Health Board. 2014. Breech Birth. https://www.cdhb.health.nz/wp-content/uploads/4cd61664-glm0048-breech-birth.pdf

Hofmeyr, G. 2018. Delivery of the singleton fetus in breech presentation. https://www.uptodate.com/contents/delivery-of-the-singleton-fetus-in-breech-presentation?search=breech%20presentation&source=search_result&selectedTitle=2~50&usage_type=default&display_rank=2

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Lakes DHB. 2004. Breech Presentation. Document 47319.
RANZCOG. 2016. Management of breech presentation at term. https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Management-of-breech-presentation-at-term-(C-Obs-11)-Review-July-2016.pdf?ext=.pdf
Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines)

Authorised By:	**Continuous Quality Improvement Maternity Group**
Consulted:	**Obstetric & Gynaecology Guidelines Group**
Ratified By:	**Mr Simon Ewen** **Head of Department Obstetrics & Gynaecology**

Appendix A: In-depth Description of Breech Management

Three to four percent of singleton fetuses will present as breech after 37 weeks gestation and most of these will be detected prior to labour. The management of labour and birth in this situation remains controversial, with much of the debate centred around the "Term Breech Trial" published in 2000. This trial compared a policy of planned vaginal birth with planned Caesarean section for selected breech presentations. It reported that perinatal mortality and serious neonatal morbidity were significantly lower in the planned Caesarean group (1.6%) compared to the vaginal birth group (5%). Perinatal death occurred in 0.3% of the LSCS group and 1.3% of the vaginal birth group. However, subsequent follow-up data on a subset of babies failed to show any long-term differences in death and neurodevelopmental delay between the two groups at two years of age.

There have been many criticisms of the study methods – selection criteria, trial compliance, analysis, etc but the overall effect of the Term Breech Trial was rapid change in practice worldwide of the management of breech presentations at term. In current practice up to 90% of breech presentations are delivered by LSCS. This has resulted in a limitation of the opportunities for training and experience in breech birth for obstetricians and midwives.

A recent meta-analysis in 2016 that included observational, non-randomised data calculated that the absolute risks of perinatal mortality for planned Caesarean birth was 1 in 2000 and for planned vaginal birth was 1 in 333. The absolute risks are therefore likely to be small. Some expert groups believe that with adherence to strict criteria before and after labour, that planned vaginal birth of the singleton breech may be offered to appropriately counselled and selected women where appropriate personnel and infrastructure to support that birth are in place. In the majority of cases, however, planned LSCS remains the recommended mode of birth.

Appendix B: Visual Aid for Breech Presentations

Types of breech presentation

Figure 31.40 Frank breech.

Figure 31.41 Complete breech.

Figure 31.42 Footling presentation.

Figure 31.43 Knee presentation.

Figures 31.40–31.43 Types of breech presentation.

Appendix C: In-depth Description of Obstetrician Counselling Session

Women who request a vaginal breech birth should be counselled by an Obstetrician and the available evidence and safety criteria discussed. Eligibility criteria described in the literature for planned vaginal breech birth are:

- No contraindication to vaginal birth (e.g. placenta praevia, compromised fetus)
- Pelvis is clinically adequate (clinical judgement is adequate to make this assessment)
- Frank or complete breech presentation
- Estimated fetal weight (EFW) >2500g and <4000g
- No previous Caesarean section
- Emergency Caesarean facilities are available
- Appropriately prepared and experienced clinicians are available for the birth

Appendix D: In-depth Description of Multi-Carer/Patient Consultation

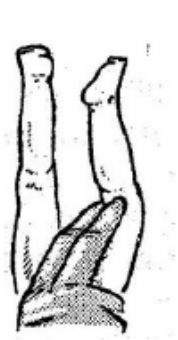
In determining the preferred mode of birth, the consultant obstetrician should consider:

- Whether a Caesarean section can be safely effected prior to spontaneous vaginal birth;
- Management of breech presentation diagnosed in labour is not the same as management of planned vaginal birth outlined in the Term Breech Trial;
- Gestational age;
- Eligibility criteria for vaginal breech birth outlined above;
- Fetal well-being as determined by CTG;
- Increased fetal risks of vaginal breech delivery such as the possibility of undiagnosed congenital abnormalities and undiagnosed hyperextension of the fetal head;
- Increased maternal risks of emergency LSCS;
- Anaesthetic considerations e.g. no group and screen, non-fasted woman;
- Potential technical difficulties in delivering the fetus at CS if the breech is very low in the pelvis;
- Syntocinon augmentation should only be used if advised by the consultant obstetrician, but this should be considered very carefully due to the risk of obstructed labour with breech birth.

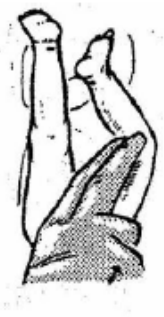
Appendix E: Manoeuvres

- Spontaneous birth of the trunk and limbs by maternal effort should be awaited – traction on the fetus can cause extension of the arms and head.

- Gentle pressure in the popliteal fossa whilst guiding the thigh away from the trunk, with gentle rotation of the trunk in the opposite direction can be employed to encourage delivery of the legs if they are extended (Pinard manoeuvre).



Pressure to the popliteal space to flex the knee and displace it to the side of the trunk

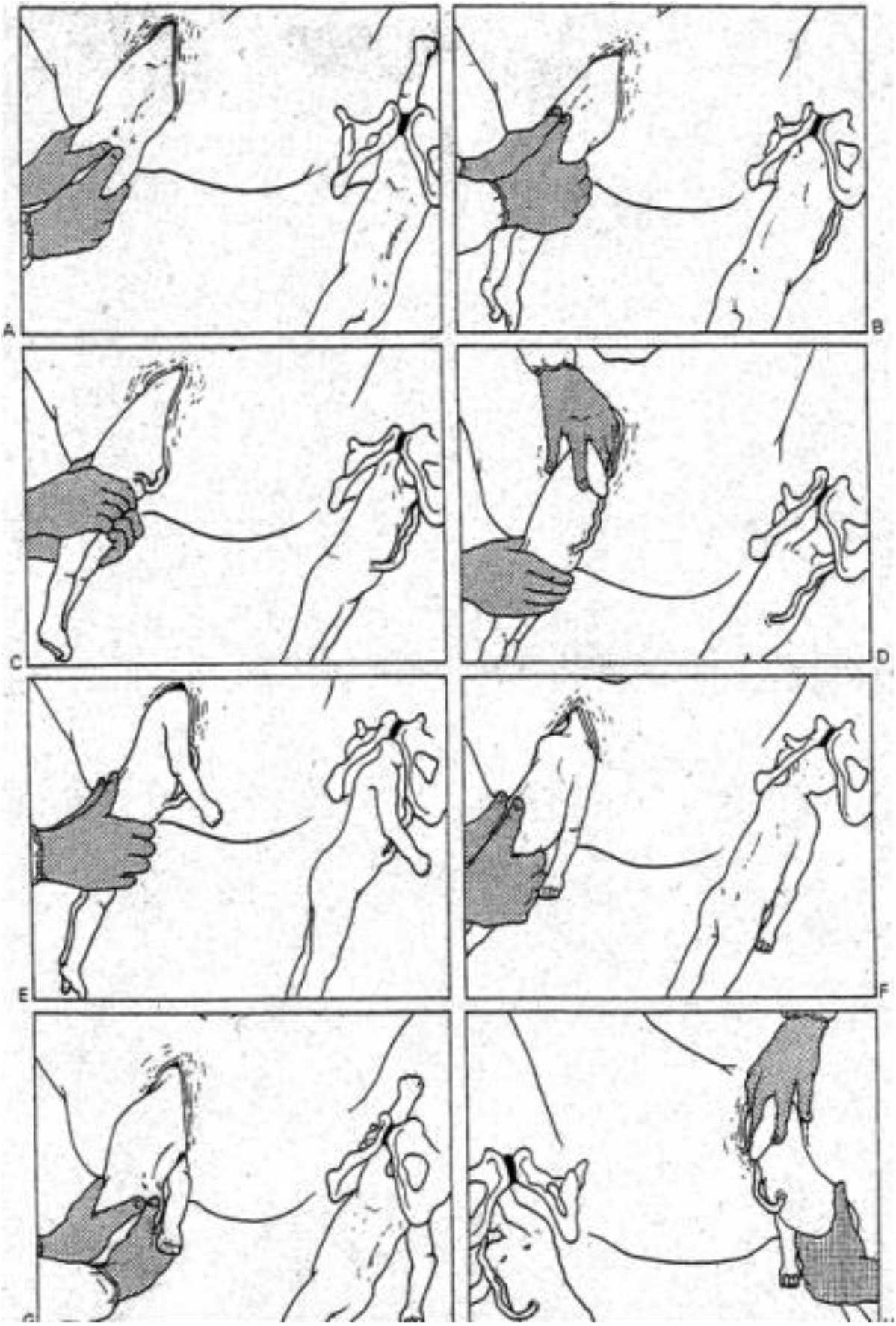


Fingers are worked along leg towards ankle to encourage further flexion of knee

The ankle is grasped and the foot swept down over the other leg

- Wrap a towel around the baby's hips to preserve warmth and to allow for a better grip if manoeuvres are needed.

- Once the bottom of the scapulae are visible gently palpate for the elbows/arms and consider the use of Løvset's manoeuvre if the arms do not deliver spontaneously:

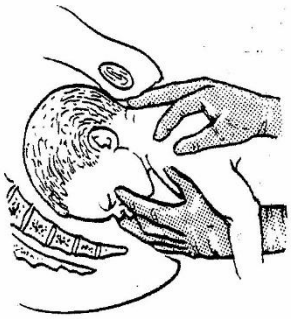

A
B
C
D
E
F

The direction of rotation must always bring the back uppermost and the arms are delivered from under the pubic arch.

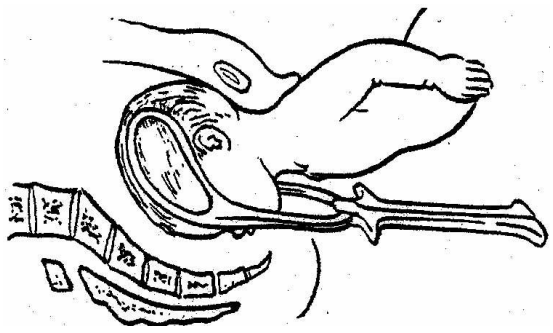
- Obstetrician / Midwife places thumbs over sacrum, downward traction is applied until axilla is visible.
- Maintaining downward traction throughout, the body is rotated, half circle, 180º starting by turning the back uppermost.
- The arm that is now anterior is delivered.
- The first two fingers of the hand which is on the same side as the baby's back are used to splint the humerus and draw it down over the chest as the elbow is flexed.
- The body is now rotated back in the opposite direction and the second arm delivered in a similar fashion.

The head may then be born without any further effort by the operator, however, in the case of delay of birth of the head, the following measures should be employed:

- Allow the baby to "hang" with gentle support and encourage maternal effort;
- If the hairline is not visible consider the use of suprapubic pressure and maternal effort to encourage flexion of the head;
- The Mauriceau-Smellie-Veit manoeuvre:
  - The fetal trunk should lie across right forearm, with legs straddling it on either side, the middle finger of this hand should be placed on the maxilla, and the second and fourth fingers of the malar eminences.
  - Counter pressure is applied with the other hand with the index finger and thumb grasping one shoulder, the middle finger on the occiput, and the other two fingers grasping the other shoulder – flexion of the head will result and the head can be delivered.



- The use of forceps to the after-coming head:



  - An assistant holds the baby's body whilst the blades of Piper or Neville-Barnes forceps are applied under the baby's head.
  - The baby's body should be moved to the side so that the operator can place the left blade of the forceps whilst in a kneeling position. The right hand is used to guide the toe of the forceps and protect the vaginal wall and side of the fetal head, whilst the left hand guides the forceps from the horizontal upwards at a 45˚ angle to move over the infant's right ear.
  - The same process is repeated on the opposite side, and the handles of the forceps are locked in place. The baby's body then straddles the shank.
  - Gentle elevation of the forceps and mild traction results in flexion and extraction of the head

The use of the Burns-Marshall manoeuvre is no longer recommended due to increased rates of fetal cervical fracture.

Head entrapment – a serious complication of breech delivery:

- More common in the preterm fetus due to the high head-to-abdominal circumference ratio, meaning the head may become caught in a partially dilated cervix
- Place the woman in McRobert's position
- Consider the use of a tocolytic such as terbutaline to aim to relax the uterus and aim with the extraction.
- If unsuccessful, consider desperate measures:
    - Dührssen incisions if the cervix is not fully dilated- typically at 6, then 2, and 10 o'clock
    - Symphysiotomy
    - Zavanelli manoeuvre with Caesarean delivery

Active third stage management is recommended for all women after breech birth.