Intrapartum Management of Breech Presentation - Full Clinical Guideline

Reference no.: UHDB/IP/09:21/B6-2

Contents

1. Introduction

The incidence of breech presentation in the UK decreases from around 20% at 28 weeks to 3-4% at term. Breech presentation at delivery is associated with a higher perinatal morbidity and mortality than cephalic presentation due principally to prematurity, congenital malformations and birth asphyxia/trauma irrespective of mode of delivery.

Elective Caesarean section (ELSCS) offers a protective effect on perinatal mortality as well as short term morbidity but not on long term morbidity, although the effect is much smaller than suggested by the Term Breech trial. The benefit appears to mainly relate to the earlier gestation at delivery by ELSCS (39 weeks) and the elimination of labour which even for a cephalic baby can lead to mortality or morbidity. The excess risk of Breech labour compared to cephalic labour is actually relatively small (1/1000) and there is evidence that the implementation of strict selection criteria, intrapartum management protocols and the presence of a skilled attendant at birth reduces risk further.

Perinatal mortality and morbidity is also increased by vaginal birth after Caesarean Section (VBAC) however this remains a common choice in subsequent pregnancies for women who choose ELSCS for breech presentation. Therefore benefit of Caesarean Section (C/S) for breech presentation alone must be individualised and considered in the light of implications for future pregnancies and the longer term consequences of C/S.

2. Purpose and Outcomes

The scope of this guideline is to advise on intrapartum management of breech presentation. The aim is to provide up to date information on protocol based management to reduce risk and improve the safety of vaginal breech birth (VBB).

For Antenatal Management of persistent breech presentation, ECV , selection criteria, counselling and decision making re mode of delivery see Integrated Care Pathway for Breech Presentation

3. Abbreviations

ACH	-	After coming head
ARM	-	Artificial Rupture of Membranes
C/S	-	Caesarean Section
CEFM	-	Continuous Electronic fetal monitoring
CTG	-	Cardioytocograph
ELSCS	-	Elective (planned) Caesarean Section
EFW	-	Estimated Fetal Weight
ECV	-	External cephalic Version
FSE	-	Fetal Scalp Electrode
HIE	-	Hypoxic-Ischemic Encephalopathy
IOL	-	Induction of Labour
ICP	-	Integrated Care Pathway
MSV	-	Mauriceau Smellie Veit
SROM	-	Spontaneous Rupture of membranes
VBAC	-	Vaginal birth after Caesarean Section
VBB	-	Vaginal Breech birth
VE	-	Vaginal Examination

4. Definitions

Types of Breech presentation:

Extended Breech (65%)	-	Hips flexed, knees extended, buttock presenting
Flexed Breech (10%)	-	Hips flexed, knees flexed but feet not below buttocks
Footling breech (25%)	-	Feet or knees lowest and presenting (one or both)

Spontaneous Breech Birth (uncommon): - Fetus allowed to descend and deliver without assistance

Assisted Breech birth (most common): - Fetus allowed to descend with the attendant employing a hands off technique but using recognised manoeuvres to assist the birth when required

5. Key Responsibilities and Duties

It is the responsibility of the clinician supervising labour with a breech presentation to ensure they have the appropriate skills, which may include simulated training.

6. Planned Vaginal Breech Birth

General principles

- Spontaneous labour only, IOL not recommended
- Recommend birth in hospital with immediate access to facilities for emergency Caesarean Section and neonatal resuscitation and availability of trained skilled birth attendant.
- On admission confirm from ICP that plan is for vaginal breech birth. Risk assess to make sure no new contraindication to VBB :
    - Hyperextended neck
    - EFW > 3.8kg
    - EFW < 10th centile

  - Footling or kneeling presentation
  - Evidence of antenatal fetal compromise
  - Other contraindication to vaginal birth
- Discuss planned mode of birth and confirm that patient still wishes to have VBB
- Inform Senior MW, Senior Obstetrician and Anaesthetist of admission. Senior Obstetrician should attend to assess. Neonatal and theatre team should be made aware and be available when delivery is imminent. Neonatal attendance at birth is recommended.
- Prepare Labour room: neonatal resus equipment; operative vaginal delivery pack; forceps (including Kiellands); equipment for delivery of stuck after coming head.
- Establish IV access, take bloods for FBC and G+S, give omeprazole
- Discuss analgesia early (options as per any labour). There is no clear evidence of benefit from routine epidural analgesia but it may be of benefit to prevent pushing before full dilatation (especially with preterm breech) as well as to improve maternal co-operation and control at delivery and assist manoeuvres.
- Recommend CEFM
- Advise against pool birth

6.1 First Stage Management

- SROM: For VE to exclude cord prolapse
- ARM: Not required routinely, recommended for clinical indications or to accelerate labour. Ensure presenting part is filling pelvis as cord prolapse is more common with breech presentation.
- Labour progress should be as for cephalic labour with evidence of progressive cervical dilatation and descent of the breech assessed by experienced personnel. Delayed progress should be escalated promptly to senior obstetrician as this is one of the commonest reasons to require delivery by C/S.
- Augmentation with syntocinon is not recommended for delayed progress unless in the presence of epidural analgesia where there is a low contraction frequency (less than 3-4/10) and should be a Consultant level decision.
- CEFM is recommended until delivery and can be by external transducer or FSE where clinically indicated. CTG abnormality before the second stage is an indication for delivery by C/S. FBS is not recommended.

6.2 Passive Second stage Management

Confirmation of full dilatation should be undertaken by a Senior Obstetrician as this is frequently misdiagnosed especially with intact membranes.

Evidence of adequate descent of the breech to the perineum is a prerequisite to commencing active second stage and should be confirmed by a Senior Obstetrician. If the breech is not visible on the perineum within 2 hours of passive second stage delivery by C/S for delayed progress is recommended.

At this stage adequate analgesia should be encouraged to optimise maternal co-operation.

6.3 Active Second Stage Management

The most critical time during VBB is when the sacrum reaches the pelvic floor and the umbilicus is entering the pelvic inlet as there is a risk of significant cord compression and acidosis which may increase with delivery of the buttocks, shoulder and head.

Delivery should be conducted by a Consultant Obstetrician or experienced registrar with adequate experience in VBB. Anaesthetist, neonatologist and theatre team should be available for delivery.

Priniciples are of non interference employing a 'hands-off ' technique but poised to assist delivery where there is concern about lack of fetal tone or colour or delay in descent. TIMELY INTERVENTION TO EXPEDITE BIRTH IS REQUIRED IF PROGRESS IS NOT MADE ONCE THE UMBILICUS IS VISIBLE (DELAY OF 5 MINUTES FROM DELIVERY OF BUTTOCKS TO HEAD OR 3 MINUTES FROM UMBILICUS TO HEAD) OR THERE IS POOR TONE, EXTENDED ARMS OR EXTENDED NECK.

Avoid tactile stimulation: may cause reflex extension of the arms or head increasing the risk of nuchal arm or hyperextended head.

Identify a member of staff to monitor the time from delivery of the buttocks to delivery of the umbilicus to delivery of the fetal head and to keep the birth attendant informed of this time.

Position for delivery: Limited evidence exists about best position for breech birth with semi-recumbent, upright or 'all fours' suitable. However it is the responsibility of the attendant at delivery to ensure they can safely carry out manoeuvres to assist breech birth and this is usually best achieved in semi recumbent position or lithotomy as per conventional teaching.

Episiotomy : Consider use especially in primips where assistance with forceps may be required for after coming head (ACH). Wait until the anus is visible above the fourchette and the breech is no longer slipping back before performing.

Spontaneous birth of the limbs and trunk is preferable. Ensure the breech rotates sacroanterior as the buttocks deliver. Controlled rotation may be required by holding the baby over the bony prominences of the pelvic girdle (avoid handling over soft tissues as this may cause injury).

If the legs do not deliver spontaneously apply pressure in the popliteal fossa to flex the knee joints.

Avoid handling the umbilical cord as this causes vasospasm.

With next contraction and maternal effort the fetal trunk should deliver and the scapulae become visible reflecting descent of shoulders through the mid pelvis. Traction on the trunk at this stage can cause nuchal arms and should be avoided if there is no delay. The arms often deliver spontaneously or can be hooked down by running a finger over the shoulder to the elbow.

Delayed delivery of the arms can be managed by Lovesetts manoeuvre: rotate posterior shoulder through 180 degrees to become anterior shoulder and deliver and repeat for opposite shoulder

Nuchal arm can be released by either:

- Rotation with Lovesetts (See Appendix A) and running the finger along the fetal arm to the antecubital fossa where pressure can be applied to flex the arm and achieve birth or
- Rotating baby towards the fetal hand as this will move it anteriorly and allow release. It may require splinting of the humerus with the operators hand and sweeping the arm across the fetal face.

After release of the arms support baby until the nape of the neck becomes visible using the weight of baby to encourage flexion of the head and engagement in the pelvis.

Delayed engagement and delivery of the head can be managed in a number of ways:

a. Ask an assistant to apply suprapubic pressure to assist flexion
b. Use Mauriceau Smellie Veit (MSV) manoeuvre to facilitate flexion and engagement and control delivery. See Appendix A
c. Forceps to assist delivery of the head (more commonly required in primparous). An assistant is required to hold baby's body. The blades are applied from beneath the fetal body and the axis of traction should aim to flex the fetal head. Kiellands forceps can be easier to apply in this situation due to the lack of pelvic curve but there is no clear evidence one type of forceps is better than another

Head entrapment: This is more common with a preterm breech due to passage through an incompletely dilated cervix. The cervix can be incised at 2,6 and 10 o'clock to avoid neurovascular bundles laterally in the cervix. There is a risk of extension into the lower segment, entry into Pouch of douglas or urethral injury

If the cervix is fully dilated but the ACH is obstructed despite manoeuvres described above symphysiotomy and C/S need to be considered. Time is of the essence as increased body to head delivery intervals increases the risk of HIE. Senior personnel should be involved (obstetric, anaesthetic, midwifery and neonatal). See Appendix B on how to perform symphysiotomy
Third stage oxytocic should not be given until after delivery of the fetal head.

7. Unplanned or undiagnosed Breech in labour

25% of term breech presentations are not diagnosed until intrapartum. Senior Obstetric, midwifery and anaesthetic personnel should be called to allow rapid assessment of the situation
Management depends on :

a) Stage of Labour

b) Absence or presence of risk factors associated with increased risk of adverse outcome (see Section 6 and ICP)

c) Availability of skilled attendant

d) Informed consent

Where possible and time permits an assessment should take place using ultrasound and the woman should be counselled as per planned VBB versus planned C/S using ICP

If labour is very rapidly progressive, in active second stage or delivery imminent routine C/S should not be offered and vaginal breech birth should be advised unless there is a clear contraindication.

The Obstetric anaesthetist and theatre team should be available in case of need for emergency manoeuvres.

8. Preterm breech

- Planned C/S is recommended for planned delivery and breech presentation due to maternal or fetal compromise
- Routine C/S for spontaneous labour with preterm breech is not routinely recommended and depends on stage of labour, type of breech and fetal wellbeing. A Senior Obstetrician should be involved in decision making in consultation with parents
- Delivery by C/S is not recommended for preterm breech at the limits of viability under 26 weeks
- Intrapartum care should be as per term breech. There is an increased risk of head entrapment at vaginal birth due to passage through an incompletely dilated cervix which may require cervical incision. The use of epidural analgesia may reduce this risk and should be discussed.
- There is also an increased risk of head entrapment at C/S which may require vertical , J or T shaped uterine incisions

9. Breech presentation in Twin pregnancy

Click here for guidance specifically on multiple pregnancy

10. Undiagnosed/unplanned breech at home or Samuel Johnson Midwife Led Unit

- Arrangements should be made for immediate transfer to hospital by paramedic ambulance .
- If at Samuel Johnson also press the emergency button which will summons assistance of staff from the Minor Injuries unit and request that a Community midwife is called immediately. This will support emergency procedures for transfer

- The accepting unit should have Senior Obstetric, midwifery, anaesthetic and Neonatal staff ready for arrival and theatre team on standby
- If birth is imminent delivery may need to be conducted by the most experienced midwife in attendance. It is recommended this is undertaken in dorsal or semirecumbent position to facilitate any manoeuvres required. Advice on management whilst awaiting transfer can be obtained from the Duty consultant Obstetrician. The neonatal team should be informed in case of need for transfer for emergency Neonatal Care

11. Monitoring Compliance and Effectiveness

As per agreed business unit audit forward programme

12. References

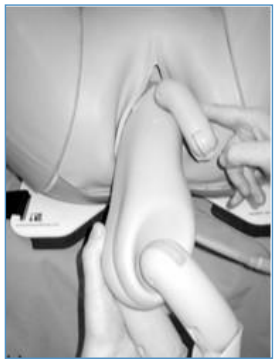
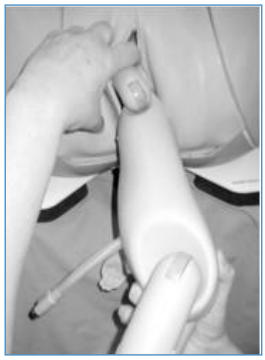
RCOG Guideline 20b 2017

Prompt course Manual

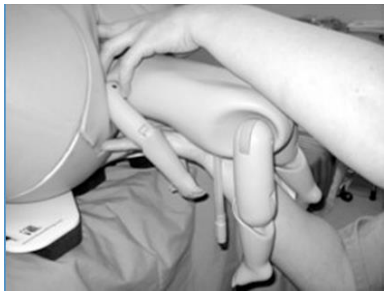
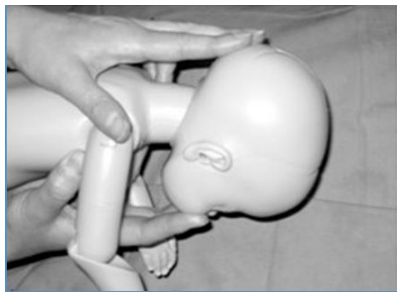
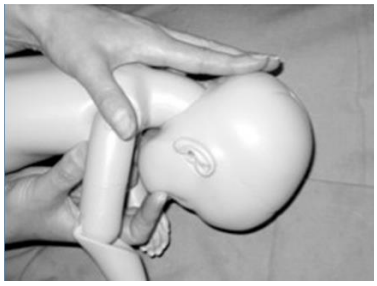
Appendix A

Lovsed's and Mauriceau Smellie Veit Manoeuvre

Allow 'HANDS OFF' birth of body and arms. If arms require assistance perform Lovsed's Manoeuvre, ONLY hold baby over hip bones (pelvic girdle), turning baby's body towards the left and right and keeping the back uppermost to release arms.

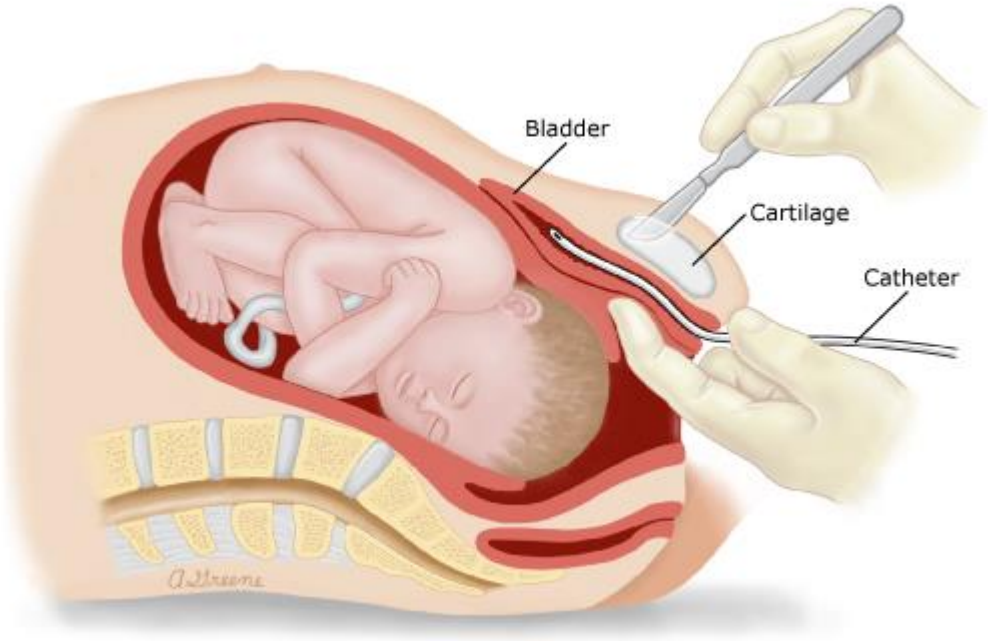
Allow 'HANDS OFF' birth of shoulders and neck. When nape of neck is visible, flex baby's head by placing fingers of one hand on the baby's shoulders and back of head, and the 1st and 3rd fingers of the other hand on the baby's cheek bones to aid flexion of the head (Mauriceau Smellie Veit manoeuvre).

Appendix B

How to carry out a Symphysiotomy

Prior to incision, local anesthetic is injected, and a bladder catheter is inserted. The clinician then manually displaces the urethra laterally. The anterior cartilage of the maternal pubic symphysis is incised with a scalpel just enough to widen the maternal pelvic ring and allow delivery of the baby. The entire thickness of the cartilage does not need to be incised.



Documentation Control

Reference Number: UHDB/IP/09:21/B6-2	**Version:** **UHDB 1**		**Status: FINAL**	
	Royal Derby prior to merged document:			
Version / Amendment	Version	Date	Author	Reason
	4	Dec 2016	Maternity Guideline Group	Review
WC/OG/22	**Burton Trust prior to merged document:**			
	5	April 2015	Mrs Anwar – Obstetric Consultation	Review / update
Version control for UHDB merged document:				
UHDB	1	Feb 2021	Miss Hamilton – Consultant Obstetrician	Review / merge
Intended Recipients:				
Training and Dissemination: Cascaded electronically through lead sisters/midwives/doctors via NHS.net, Published on Intranet, Article in Business unit newsletter;				
To be read in conjunction with:				
Keywords:				
Consultation with:	Obstetricians, Maternity staff			
Business Unit sign off:	06/04/2021: Maternity Guidelines Group: Miss S Rajendran – Chair 15/04/2021: Maternity Governance Committee/ACD – Mrs K Dent			
Divisional sign off:	27/04/2021			
Implementation date:	01/09/2021			
Review Date:	April 2024			
Key Contact:	Cindy Meijer			