The Royal HOSPITAL FOR WOMEN

LOCAL OPERATING PROCEDURE

CLINICAL POLICIES, PROCEDURES & GUIDELINES

Approved by Quality & Patient Care Committee
17 May 2018

BREECH PRESENTATION AT TERM – ANTENATAL AND INTRAPARTUM MANAGEMENT

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Consistent antenatal/intrapartum counselling and management of a woman with a breech presentation at or beyond 37 weeks gestation in a singleton pregnancy

2. PATIENT

- Woman with a breech presentation in a singleton pregnancy at or beyond 37 weeks gestation

3. STAFF

- Medical and midwifery staff

4. EQUIPMENT

- Ultrasound
- Cardiotocograph (CTG)
- Delivery pack
- Mid-cavity forceps
- Blood gas syringes and analyser

5. CLINICAL PRACTICE

Breech presentation diagnosed in antenatal setting (Appendix 1)

- Confirm presentation by bedside ultrasound in outpatient setting (if possible) if breech presentation is suspected ≥36 weeks gestation
- Arrange a formal ultrasound in RHW Medical Imaging department if breech presentation is confirmed ≥ 36 weeks gestation to assess:
    - presentation
    - liquor volume
    - estimated fetal weight (EFW)
    - placental site
    - attitude of the fetal head
    - type of breech (e.g. frank, complete, footling)
    - if there is an underlying cause for breech presentation e.g. undiagnosed placenta praevia, maternal uterine anomaly, fetal anomaly
- Refer woman to either Breech Clinic or Antenatal Clinic (ANC) of her usual model of care, for assessment and counselling at 36-37 weeks gestation, with result of formal ultrasound available
- Give woman patient information leaflet (Appendix 2)
- Encourage woman with an uncomplicated pregnancy to have an external cephalic version (ECV) if caesarean section is not indicated on other grounds, and she fulfils criteria for ECV. Give woman NSW Health External Cephalic Version (ECV) for Breech Presentation information sheet. If she agrees to the procedure:
    - contact Delivery Suite to book ECV for 36-37 weeks gestation on the Delivery Suite, with an appropriately trained medical officer
    - if ECV is successful, the woman should return to her usual model of care
    - if ECV is unsuccessful or declined, the woman should have an appointment in the Breech Clinic, to further discuss birth options

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BREECH PRESENTATION AT TERM – ANTENATAL AND INTRAPARTUM MANAGEMENT cont'd

- Be aware contraindications to vaginal breech birth include:
    - cord presentation
    - any presentation other than frank or complete breech
    - extension of the fetal head
    - fetal anomaly incompatible with vaginal delivery
    - fetal growth restriction or macrosomia
- Consider planned vaginal breech birth of the singleton breech at term if:
    - ECV unsuccessful or woman declines ECV
    - EFW at time of birth is 2.5kg-4kg
    - the pregnancy has been uncomplicated
    - there are no contraindications to vaginal breech birth
    - the woman is well informed about benefits and risks of birth options (Appendix 3) and motivated for vaginal breech birth
- Ensure woman has adequate time to consider her options
- Arrange an elective caesarean section for woman who:
    - declines ECV or has had an unsuccessful ECV
      AND
    - declines or has a contraindication to vaginal breech birth
    - book caesarean section for 39-40 weeks gestation
- Document details of counselling and birth plan in the woman's medical record (eMat Obstetric Birth Plan) with regards to planned mode of delivery. Include consultant obstetrician cover arrangement if there is a specific arrangement other than the on-call consultant of the day

Breech presentation first diagnosed with ruptured membranes and/or in labour

- Ask obstetric registrar to attend and assess woman when breech presentation is suspected
- Encourage everyone in the room to remain calm
- Perform bedside ultrasound to confirm presentation and establish attitude of the fetal head
- Commence CTG
- Inform the on-call consultant obstetrician
- Continue with full maternal and fetal assessment including vaginal examination
- Counsel the woman on an individual basis regarding the risks and benefits of vaginal birth versus caesarean section, recognising that counselling may be more limited in this setting
- Ensure woman is given adequate time to consider her options, depending on clinical scenario
- Book caesarean section for woman who has chosen or been advised this option
- Admit to Antenatal Ward if ruptured membranes confirmed and not in labour, if woman is considering or agreeable to attempt vaginal breech birth
- Proceed with attempt of vaginal breech birth if:
    - adequate labour progress
    - normal CTG
    - frank or complete breech
    - flexed head
    - woman is comfortable with decision

Intrapartum management with breech presentation

- Recommend one to one midwifery care
- Perform full midwifery assessment

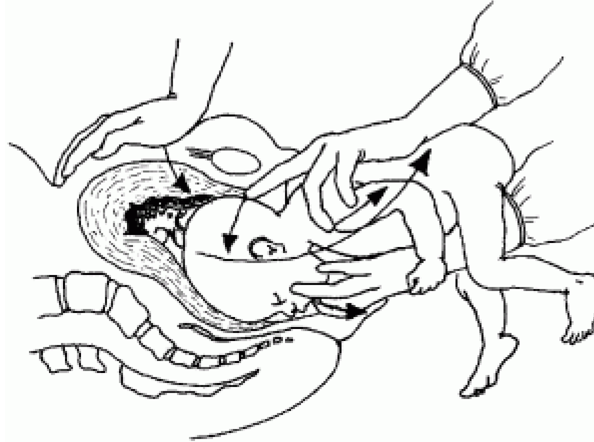
BREECH PRESENTATION AT TERM – ANTENATAL AND INTRAPARTUM MANAGEMENT cont'd

- Commence CTG and continue throughout active labour
- Notify the obstetric registrar and on-call consultant obstetrician
- Encourage active mobile labour
- Use epidural in labour as per standard indication
- Manage labour expectantly where there is normal cervical dilatation and fetal descent
- Perform vaginal examination promptly after rupture of membranes to assess for cord presentation/prolapse and/or footling breech
- Apply fetal electrode to fetal buttocks if the external CTG is of consistently poor quality
- Notify on-call consultant obstetrician once cervix is 8-9cm dilated

Birth

- Ask consultant obstetrician to attend if labour progress is rapid or when the woman commences active pushing
- Confirm full dilatation prior to commencement of active pushing
- Allow one hour of passive descent if breech not on view
- Commence active pushing when breech is at station +1 or below
- Notify paediatric registrar at commencement of active pushing and ask to attend when birth imminent
- Advise caesarean section if birth not imminent after one hour of active pushing
- Determine woman's birthing position by an agreement between the woman, the midwife and the consultant obstetrician
- Keep "hands off" once the breech is birthing with hands poised ready to support the neonate
- Allow the back to rotate anteriorly. Encourage the back to remain uppermost
- Encourage the woman to push at this stage even if she does not have a contraction
- Observe descent of the body which should occur in a two to three-minute time period
- Recognise significant delay if descent of the body is slow and/or the body has not rotated to sacrum anterior over a two to three-minute time period. Suspect that the arms are either extended or nuchal
- Perform a vaginal examination to determine the location of the fetal arms:
  - Next to the head
  - Extended either side of the head
  - Nuchal
- Attempt to sweep the arms down particularly if the scapula(e) are visible
- Perform Lovsett's manoeuvre to deliver arms if sweep unsuccessful
- Cease any attempt at Lovsett's manoeuvre if there is significant resistance to the rotation
- Reach higher for the elbow to sweep the arm down and out if previous manoeuvre is unsuccessful as it is most likely nuchal arm(s)
- Reach for the shoulder girdle and rotate 180 degrees in the direction that the hand is pointing
- Ask an assistant to support the body while the head is being delivered if needed
- Apply suprapubic pressure from an assistant to assist flexion of the head
- Apply Mauriceau Smellie Veit (MSV) manoeuvre to deliver the head when the nape of the neck is visible. Preferably use the modified MSV manoeuvre - index and middle fingers on the upper malar eminences and counter pressure on the occiput with the middle finger of the other hand

BREECH PRESENTATION AT TERM – ANTENATAL AND INTRAPARTUM MANAGEMENT cont'd



- Use mid-cavity forceps if the MSV procedure is unsuccessful
- Perform episiotomy as per standard indications
- Administer syntocinon after delivery of head
- Collect paired cord blood samples for analysis

6. DOCUMENTATION

- Antenatal card
- Medical record
- Partogram
- Obstetric database

7. EDUCATIONAL NOTES

- NSW Health have provided guidance (2017) to LHDs to establish a planned vaginal breech birth service in order to ensure all women have access to this birth option, with appropriate safety controls and processes in place.
- RHW has the appropriate expertise and facilities to support such a service for women wishing to consider this option who already plan to deliver at RHW, as well as for those women within the LHD who are booked at another hospital not able to provide such a service.
- Approximately 3% of singleton pregnancies at term the fetus will be in a breech presentation, with the majority being detected prior to labour.
- The clinical practice in Australia has been strongly influenced by the "Term Breech Trial" published in 2000 with 90% of breech presentations at term now being delivered by caesarean section.
- Term Breech Trial:
    - A multi-centred, international, randomised controlled trial published in 2000 which compared a policy of planned vaginal delivery with planned caesarean section for breech presentation at term
    - 2088 women were entered into the trial with mothers and infants followed up for 6 weeks postpartum to assess:
        - perinatal mortality
        - neonatal mortality
        - serious neonatal morbidity
        - maternal mortality
        - serious maternal morbidity

BREECH PRESENTATION AT TERM – ANTENATAL AND INTRAPARTUM MANAGEMENT cont'd

- In countries with a low perinatal mortality rate (such as Australia) there was:
  - Combined perinatal mortality rate (PMR) and serious neonatal morbidity rate of 5.7% in the planned vaginal birth group vs 0.4% in the elective caesarean section group
  - PMR of 0.6% in the planned vaginal birth group vs 0% in the elective caesarean section group
  - Serious neonatal morbidity rate of 5.1% in the planned vaginal birth group vs 0.4% in the elective caesarean section group
  - No difference in maternal mortality or serious maternal morbidity – 3.2% for the planned vaginal birth group vs 3.9% in the elective caesarean section group
- Where an experienced clinician (defined as > 20 years breech vaginal delivery experience) delivered the breech baby vaginally, the combined PMR and serious neonatal morbidity rate was 3.6% vs 1.2% for elective caesarean section. This was further reduced to 3.3% vs 1.6% with the exclusion of induction/augmentation, footling or uncertain breech presentation, no skilled or experienced clinician present at birth. This latter figure is probably most representative of management at a tertiary teaching hospital in Australia.
- Concluded with a policy of planned caesarean section, for every additional 14 caesarean sections done, one baby will avoid mortality or serious perinatal morbidity.
- Subsequent follow-up failed to show long-term differences in death and neurodevelopmental delay between the two groups at 2 years of age, although this analysis was underpowered so should be interpreted with caution.
- There has been criticism of the Term Breech Trial methods related to enrolment, accoucheur skill, selection criteria, outcome criteria and diversity of settings.
- Due to the limitation of 6 weeks postpartum follow up, the trial did not analyse any of the long term implications of caesarean section for the mother e.g. uterine scar rupture in future pregnancies, potential surgical morbidity of repeat caesarean section, placental site abnormalities.

- An analysis of 35,454 term breech deliveries in the Netherlands (Rietberg 2006) calculated 175 caesarean sections would be required to avoid one fetal death.
- PMR (RCOG 2017):
  - approximately 0.5/1000 with breech caesarean section after 39+0 weeks gestation
  - approximately 2.0/1000 with planned vaginal breech birth
  - approximately 1.0/1000 with planned vaginal cephalic birth.
- Numerous observational studies demonstrate safe outcomes for mother and baby where there is adherence to selection criteria, labour progress, fetal monitoring in labour and ready recourse to caesarean section.
- PREMODA study:
  - A prospective observational multicentre study published in 2006 involving 8105 women in 174 centres in France and Belgium
  - CS planned in 69% and trial of labour (TOL) in 31%
  - In the TOL arm 71% delivered vaginally – giving an overall vaginal breech birth rate of 22.5%
  - Similar practice to other first world countries, except 82% did have radiological pelvimetry
  - No difference in PNM (0.08% TOL vs 0.15% planned CS) or serious neonatal morbidity (1.6% TOL vs 1.45% planned CS)
  - Only significant difference was 5-minute Apgar score <4 0.16% in TOL group vs 0.02% planned CS group

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- Regular practice in vaginal breech birth should be part of the teaching programme in obstetric emergencies.
- The team caring for the woman in labour must rehearse both normal and difficult births of the baby with a pelvic model.
- Diagnosis of breech presentation in labour is not a contraindication for vaginal breech birth but may increase the fetal risks as there is a possibility of undiagnosed congenital anomalies and EFW has not been established. It is important to recognise that there may be limited opportunity for counselling in these circumstances.
- Fetal blood sampling is possible after obstetric consultant review.
- Induction or augmentation is not recommended.

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- External cephalic version
- Fetal electrode
- First stage of labour – Progress and management of delay
- Intra-partum fetal monitoring
- Caesarean birth – maternal preparation and receiving the newborn by midwives and nurses

9. RISK RATING

- Low

10. NATIONAL STANDARD

- CC – Comprehensive Care

11. REFERENCES

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REVISION & APPROVAL HISTORY
Reviewed and endorsed Maternity LOPs 8/5/18
Replaced : *Breech Vaginal Birth Guidelines :*
Approved Clinical Performance & Quality Committee 19/3/07
Maternity Services Clinical Committee 13/3/07
and *Breech - Antenatal Management of Term Breech Guidelines :*
Approved Quality Council 16/5/05
Maternity Services Clinical Committee 19/4/05

FOR REVIEW : MAY 2023

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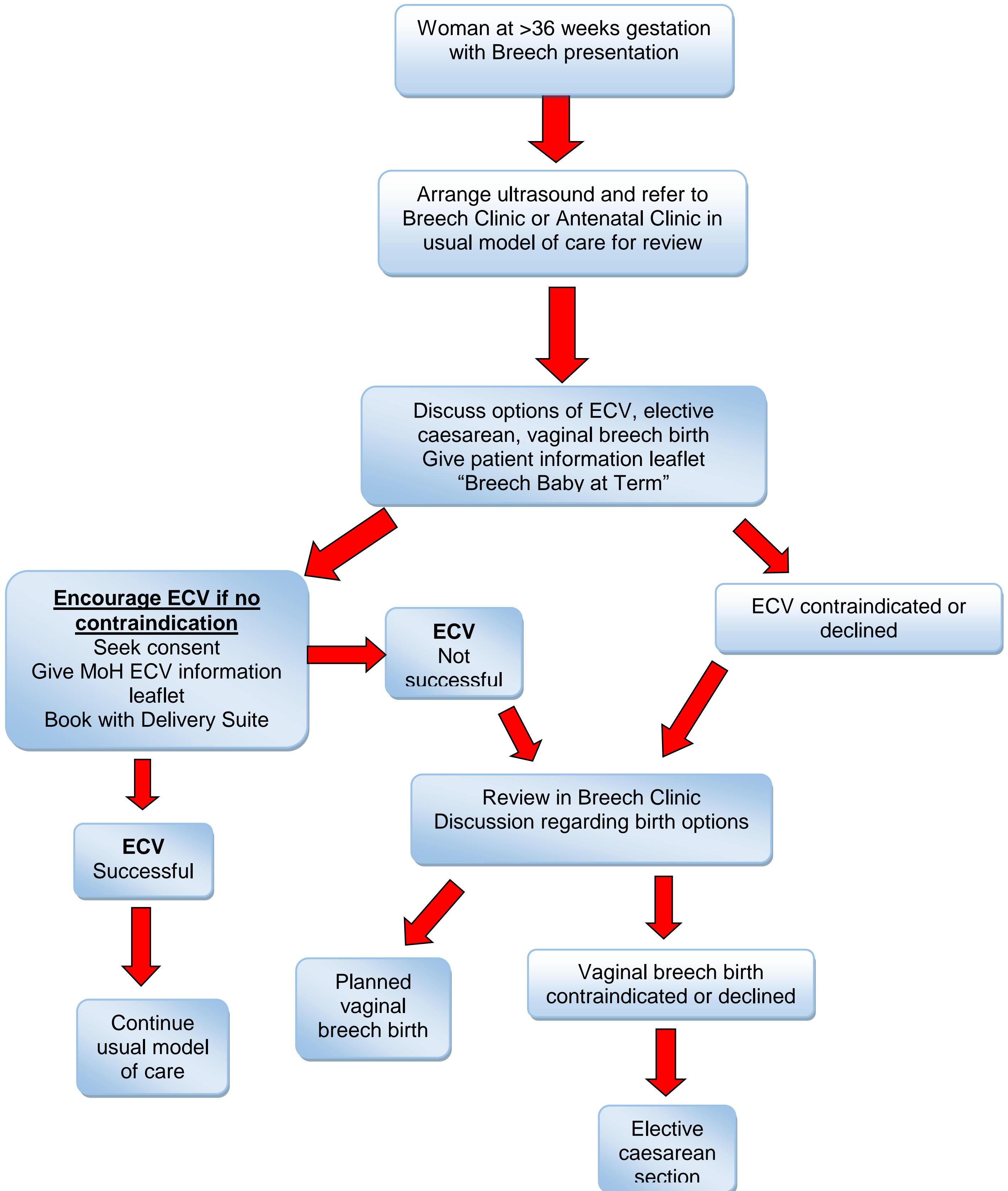
APPENDIX 1

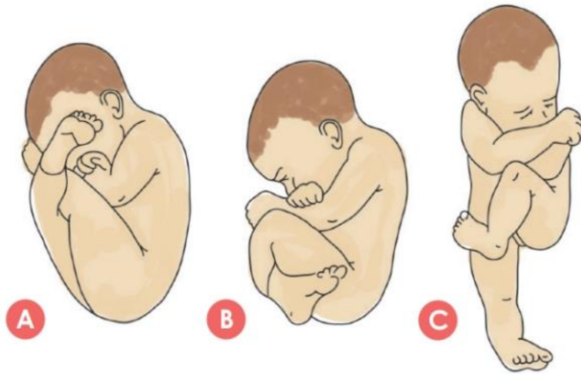


APPENDIX 2

Breech Baby at Term - Information about your care options

This information brochure provides information to help with your decision making and discussions with your midwife and/or doctor when your baby is in the breech position.

What is breech?
Breech means that your baby is lying 'bottom first' or' feet first' instead of the usual 'head first' position. In early pregnancy, approximately 25% of babies are in the breech position. Between 37 and 42 weeks (term), most babies are lying head first ready to be born. Three in every 100 (3%) babies are in the breech position at the end of pregnancy. A breech baby may be lying in one of the following positions:



A Extended or frank breech

B Flexed breech

C Footling breech

Why are some babies breech at the end of pregnancy?
Most of the time, it is just by chance that a baby does not turn and remains in the breech position. Other times there may be a reason why your baby prefers to lie in this position. Some factors may make it difficult for a baby to turn during pregnancy, such as the amount of fluid in the womb, the position of the placenta, or the shape of your womb.

What can be done?
If you are 36 weeks pregnant (or more) and your baby is in a breech position, your doctor and midwife should discuss with you if you are suitable to try external cephalic version (ECV). For more information on ECV see the MoH Health consumer information brochure: *External Cephalic Version for Breech Presentation.*

What are my choices for birth if my baby remains in the breech position?
Depending on your situation, your choices may include:

- A planned vaginal breech birth or
- A planned caesarean section.

There are benefits and risks associated with both a caesarean section and a vaginal breech birth. These risks should be discussed with you so that you can choose the most appropriate option for you and your baby.

Caesarean section
Depending on your circumstances, caesarean section may be recommended as the safest option for you and your baby. Caesarean sections carry higher risks for you than having a vaginal breech birth, but lower risks for your baby. If you plan a vaginal breech birth and your labour does not progress as expected, your doctor may recommend you have a caesarean section during labour. Regardless of what you plan, the safest way for you to give birth may change once you are in labour.

Planned vaginal breech birth
Current international evidence shows that planned vaginal breech birth can be a safe option for some women and their babies. However, it may not be recommended as safe in all circumstances. You should discuss your personal circumstances with your midwife and doctor.

Generally, the circumstances for a safe and successful vaginal breech birth are:

- An obstetrician is available who is trained and experienced in vaginal breech birth
- 24 hour-a-day facilities at your hospital for an emergency caesarean section (if this is necessary)
- You and your baby are healthy and have had no major health issues during your pregnancy
- Your baby is in a frank or flexed breech position (see pictures A and B on previous page)
- Your baby's weight is expected to be 2.5-4.0kg at the time of birth
- Your baby's head is in a flexed position
- You (and your support people) are motivated for vaginal breech birth

For women with these circumstances, who are suitable to plan for vaginal breech birth, 60-70% will achieve a vaginal breech birth, with the remaining 30-40% requiring an emergency caesarean at some point during the labour. This is a higher rate of emergency caesarean section than if your baby is head first.

The risks of your baby having serious complications (e.g. trauma, injury, fractures, a bleed in the brain, brain damage leading to cerebral palsy/developmental delay, death) from a vaginal breech birth in these circumstances are low (3.3%) but higher than if a breech baby is born by planned caesarean section (1.6%)
The chance of a baby dying born by:

- head first vaginal birth is 2/2000
- planned caesarean breech birth is 1/2000
- vaginal breech birth is 4/2000

What can I expect in labour and birth with a breech baby?
It is recommended that your baby's heart rate is monitored continuously during labour.
It is helpful for you to use a variety of positions as much as possible in labour, such as standing, squatting, kneeling on all fours or using a birth stool. Your doctor or midwife may recommend a change of position for birth.
Staff will support you and help you to maintain a calm birth environment, which is important for the progress of labour and birth.
Breech babies born vaginally may appear stunned at birth and have a lower Apgar score at five minutes old compared to babies born head first. Evidence has shown that this does not cause long-term health problems for these babies. As a precaution there will be a paediatric doctor at any breech birth.

What if my baby is born early?
If your baby is going to be born before 37 weeks, your doctor will discuss with you the safest option of birth for you.

If you would like further information, we recommend that you read:

- ***"Breech Baby at the end of Pregnancy" www.rcog.org.uk/en/patients/patient-leaflets/breech-baby-at-the-end-of-pregnancy/***
- ***The RCOG Green-top Guideline "Management of Breech Presentation (Green-top Guideline No.20b)" www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg20b/***
- ***"Breech Presentation at the End of your Pregnancy" www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women's Health/Patient information/Breech-presentation-end-pregnancy-pamphlet.pdf***

RHW acknowledges NSW Ministry of Health information leaflet "Breech baby at term Information about your care options"
September 2016

APPENDIX 3

Important information for staff counselling a woman who is suitable for either a vaginal breech birth or caesarean section.

Clinicians should counsel woman in an unbiased way that ensures a clear understanding of the absolute as well as relative risks of different options.

Vaginal breech birth

- Ensure no contraindications to vaginal breech birth
- Advise woman that with selection of appropriate pregnancies and skilled intrapartum care, planned vaginal breech birth may be nearly as safe as planned vaginal cephalic birth, with successful vaginal birth rate of 60-70%
- Explain mechanics of labour and birth, ideally with doll and pelvis
- Emphasise need for careful attention to labour progress
- Emphasise importance of vaginal examination with ruptured membranes to assess for cord and/or footling presentation
- Recommend continuous electronic fetal monitoring in labour
- Recommend active labour/mobilise in labour, as not able to augment/induce labour
- Analgesia/epidural use as per standard labour indication
- Explain active second stage of birth is "hands off" as much as possible, with "hands on" only if there are delays
- Episiotomy performed as per standard indication
- Discuss possibility of forceps to the after coming head (FACH)
- Advise no greater incidence of prolonged labours, perineal tearing
- Advise a caesarean section after one hour of active pushing if birth not imminent. Inform not able to perform instrumental delivery (apart from FACH) and breech extraction not recommended
- Advise induction/augmentation not recommended
- Recommend paediatrician present at birth as planned vaginal breech birth increases the risk of low Apgar scores and serious short-term complications, but has not been shown to increase the risk of long-term morbidity

Benefits of Breech Vaginal Birth

- Lower maternal complication rate and greater chance of vaginal birth in future (compared to caesarean birth)
- Avoidance of maternal risks and long term sequalae of caesarean section

Risks of Breech Vaginal Birth

- Higher chance (30-40%) chance of emergency caesarean compared to cephalic presentation – mostly due to slower labour progress or CTG abnormalities. Increase in risks with emergency versus elective caesarean, especially in second stage of labour
- Combined perinatal mortality/morbidity higher (3.3%) compared with 1.6% for elective caesarean), in women who fulfil suitable criteria to attempt breech vaginal birth
- Perinatal mortality rate 4/2000 (compared with 2/2000 for planned vaginal cephalic birth and 1/2000 planned caesarean breech birth)

Caesarean Section

- Advise elective caesarean section safer than emergency caesarean section for mother
- Advise safer for baby – see figures above
- Explain mechanics of breech birth at caesarean
- Discuss possibility of forceps to the after coming head (FACH)
- Advise recommended timing ≥39+0 weeks gestation
- Recommend paediatrician present at birth as breech birth by caesarean is associated with low Apgar scores than elective caesarean section with cephalic presentation

Benefits of Caesarean Section

- Reduced neonatal morbidity/mortality (compared to breech vaginal birth) for baby due to:
  - the avoidance of stillbirth after 39-40 weeks gestation
  - the avoidance of intrapartum risks of labour
  - the risks of vaginal breech birth, (and that only the last is unique to a breech)

Risks of Caesarean Section

- Surgical risks of caesarean:
    - Wound infection
    - Blood loss/ blood transfusion
    - Injury to other organs e.g. bladder, bowel, ovary, fallopian tube, blood vessels
    - Thrombosis – DVT/PE
- All of the above risks are increased with emergency caesarean section compared to elective caesarean section
- Increased likelihood of repeat caesarean in future pregnancies
- Increased risks of surgical complications in future caesarean sections
- Increased placentation abnormalities in future pregnancies e.g. placenta praevia/accreta
- Woman should be given an individualised assessment of the long-term risks of caesarean section based on her individual risk profile and reproductive intentions, and counselled accordingly