Royal Hospital for Women (RHW)
BUSINESS RULE
COVER SHEET

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EXECUTIVE SPONSOR	Medical Co-Director of Maternity
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SUMMARY	About 3% of singleton pregnancies at term will have a breech presentation. Having consistent antenatal counselling and intrapartum management is important for safe care.

Royal Hospital for Women (RHW)
CLINICAL BUSINESS RULE

BREECH PRESENTATION AT TERM – ANTENATAL AND INTRAPARTUM MANAGEMENT

RHW CLIN008

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1. BACKGROUND

In approximately 3% of singleton pregnancies at term, the fetus will be in a breech presentation, with the majority being detected prior to labour.

The aim of this CBR is to provide a basis for consistent antenatal and intrapartum counselling and management for a woman with a breech presentation at or beyond 37 weeks gestation in a singleton pregnancy.

2. RESPONSIBILITIES

2.1 Medical staff – counselling, development of a comprehensive care plan inclusive of antenatal, intrapartum, and postnatal care

2.2 Midwifery staff – recognition, management, and support inclusive of antenatally, intrapartum, and postpartum care

3. PROCEDURE

3.1 **Breech presentation diagnosed in antenatal setting** (Appendix 1)

- Perform bedside ultrasound in outpatient setting at ≥36 weeks gestation to confirm presentation
- Arrange a formal ultrasound in RHW Medical Imaging if breech presentation is confirmed to assess:
  - presentation
  - liquor volume
  - estimated fetal weight (EFW)
  - placental site
  - attitude of the fetal head
  - type of breech (e.g., frank, complete, footling)
  - for possible underlying cause for breech presentation e.g., undiagnosed placenta praevia, maternal uterine anomaly, fetal anomaly
- Refer woman to RHW Breech Clinic for assessment and discussion between 36-37 weeks gestation, ensuring formal ultrasound report available. For women not booked at RHW contact antenatal Outpatient Department (9382 6237/6209) to facilitate an appointment
- Give the woman the Breech and External Cephalic Version (ECV) factsheet
- Recommend an ECV if not contraindicated (see educational notes)
- Contact Birth Unit and book ECV for > 37 weeks gestation
- Arrange antenatal follow-up:
  - to woman's usual model of care if ECV performed and successful
  - to the Breech Clinic to discuss birth options if ECV attempted and unsuccessful, ECV declined or contraindicated
- Consider planned vaginal breech birth if:
  - baby remains breech following an attempt at ECV
  - the woman declines an ECV
  - estimated fetal weight at time of birth is between 2.5-4kg

- the pregnancy is uncomplicated
- the woman is motivated for a vaginal breech birth
- the woman is well informed about benefits and risks of birth options (as outlined in educational notes)
- there are no contraindications to vaginal breech birth.

- Arrange an elective caesarean birth for a woman who declines or has a contraindication to vaginal breech birth
- Document details of discussion in the woman's medical record
- Ensure woman has adequate time to consider her options
- Obtain written consent using consent form (SMR020.001) for vaginal breech or planned caesarean birth
- Document the woman's comprehensive care plan in the medical record. Include consultant obstetrician cover arrangement if there is a specific arrangement other than the on-call consultant of the day

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

- Request review by obstetric registrar to assess woman when breech presentation is suspected
- Perform bedside ultrasound to confirm presentation, type of breech and establish attitude of the fetal head
- Commence cardiotocograph (CTG)
- Inform the on-call consultant obstetrician
- Complete a full maternal and fetal assessment including vaginal examination
- Consider vaginal breech birth if:
  - frank or complete breech
  - flexed head
  - no cord presenting
- Counsel the woman on an individual basis regarding the physiology of a vaginal breech birth, and the benefits and risks of vaginal versus caesarean birth, recognising that discussion may be more limited in this setting (see educational notes)
- Ensure woman is given adequate time to consider her options, recognising that discussion may be more limited in this setting (see educational notes)
- Facilitate chosen mode of birth and sign consent form regardless of birth mode
- Admit to antenatal ward if ruptured membranes confirmed and not in labour, if woman is motivated for a vaginal breech birth
- Proceed with planned vaginal breech birth if:
  - adequate labour progress
  - normal CTG
  - woman remains motivated

3.3 **Intrapartum management with breech presentation**

- Notify the obstetric registrar and on-call obstetrician of admission
- Recommend one to one midwifery care in birth unit
- Recommend continuous Electronic Fetal Monitoring (cEFM) throughout labour and birth
- Encourage upright and active, mobile labour
- Collect a group and hold
- Manage labour expectantly where there is normal cervical dilatation and fetal descent
- Recommend 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
- Consider fetal blood sampling after obstetric consultant review
- Consider induction or augmentation of labour on an individual basis after discussion with the on-call obstetrician

- Advise woman pharmacological analgesia, including epidural can be utilised as per standard guidelines
- Notify on-call consultant obstetrician once cervix is 8-9cm dilated

3.4 **Birth** (See Appendix 2 & 3)

- Confirm full dilatation with vaginal examination
- Request consultant obstetrician's presence. Once present, consultant obstetrician to lead simulation of physiological and assisted breech birth prior to birth with medical and midwifery team, including delegation of clinical roles
- Allow up to 90 minutes of passive descent if breech not on view
- Commence active pushing:
  - when breech is at station +1 or below, OR
  - after 90 minutes of passive descent
- Notify paediatric registrar at commencement of active pushing and request their attendance when birth is about to occur
- Recommend caesarean section (60-minute category) after 60 minutes of active pushing if breech not convincingly about to birth
- Determine woman's birthing position by an agreement between the woman, the midwife, and the consultant obstetrician. The use of a birth stool or an upright position is recommended
- Ensure "hands off" once the breech is birthing (rumping) with hands poised ready to support the fetus
- Support the woman and the physiological vaginal breech birth (see appendix 2)
  - Observe the fetal back to rotate anteriorly (sacrum anterior)
  - 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 three to five-minute time period
  - Observe spontaneous birth of fetal legs
  - Observe spontaneous birth of the arms and fetal head
- 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 (see appendix 3 for assisted breech birth techniques)
- Correct the rotation by gently grasping the hips if the back starts to rotate posteriorly
- 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) is visible
- Perform Lovsett's manoeuvre to deliver arms if sweep unsuccessful (see appendix 3)
- 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 Lovsett's manoeuvre is unsuccessful
- Reach for the shoulder girdle and rotate 180 degrees in the direction that the hand is pointing if a nuchal arm is suspected, and sweep the arm down over the chest
- 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 (see appendix 3)
- Consider suprapubic pressure from an assistant to assist flexion of the head (see appendix 3)
- Use mid-cavity forceps, e.g Neville Barnes Forceps if the MSV procedure is unsuccessful
- Recommend active management of the third stage with Syntocinon® following the birth of the head
- Collect paired cord blood samples for analysis

3.5 **Documentation**

- Medical record
- Antenatal card

3.6 **Educational Notes**

- An external cephalic version should be recommended to any women with a baby presenting breech at term who does not have a significant contraindication. ECV exclusion criteria[17]:
  - Gestation ≤ 36 weeks gestation
  - Ruptured membranes
  - Severe hypertension (in current pregnancy)
  - Multiple pregnancy
  - Uterine scar other than a previous lower segment caesarean
  - Uterine abnormality (e.g. major septum in uterus)
  - History of placental abruption (in current pregnancy)
  - Vaginal bleeding in third trimester (in current pregnancy)
  - Amniotic fluid index < 5 (for current pregnancy)
  - Non-reassuring fetal welfare e.g. small for gestational age with abnormal doppler flow, abnormal fetal heart rate pattern
  - Fetal abnormalities of the heart, brain and/or spinal column
  - Hyperextension of the fetal head
- The following maternal conditions and the woman's birth plan should be considered prior to offering ECV[17]:
  - Significant cardiac disease
  - Uncontrolled hyperthyroidism
  - Poorly controlled diabetes mellitus.
- 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
- Identified contraindications to vaginal breech birth include:
  - cord presentation
  - any breech presentation other than frank or complete
  - extension of the fetal head
  - significant fetal anomaly
  - suspected fetal growth restriction or macrosomia
- 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[3]
- Term Breech Trial[3]:
  - 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
  - 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
    - With the exclusion of induction/augmentation, footling or uncertain breech presentation, and no skilled or experienced clinician present at birth the combined PMR and serious neonatal morbidity rate was 3.3% vs 1.6%.
    - This figure is probably most representative of management at a tertiary teaching hospital in Australia
    - In the trial population it was concluded that 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
  - 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
  - There has been criticism of the Term Breech Trial methods related to enrolment, accoucheur skill, selection, labour progress, outcome criteria and diversity of settings and clinical standards[2,4,6]
- 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
- PREMODA study[7]:
  - 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 and 70% in the TOL arm received Syntocinon® augmentation
  - 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
- More updated consensus statistics from RCOG in 2017 estimate the PMR to be[1]:
  - 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[12,13,14,15,16]

3.7 **Related policies**

- Fetal Electrode Application
- First stage of labour – recognition of normal and management of delay
- Caesarean birth – maternal preparation and receiving the Neonate(s)
- Fetal Heart Rate Monitoring – Maternity MoH GL2018/025
- External cephalic version (ECV) – MoH GL2017-007

3.8 **Implementation and education plan**

This CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at team meetings prior to a breech delivery, education and patient quality and safety meetings. Education will occur through in-services and junior medical staff teaching, including simulations. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access. We Suggest:

- Regular practice in vaginal breech birth should be part of the teaching program 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.

3.9 **References**

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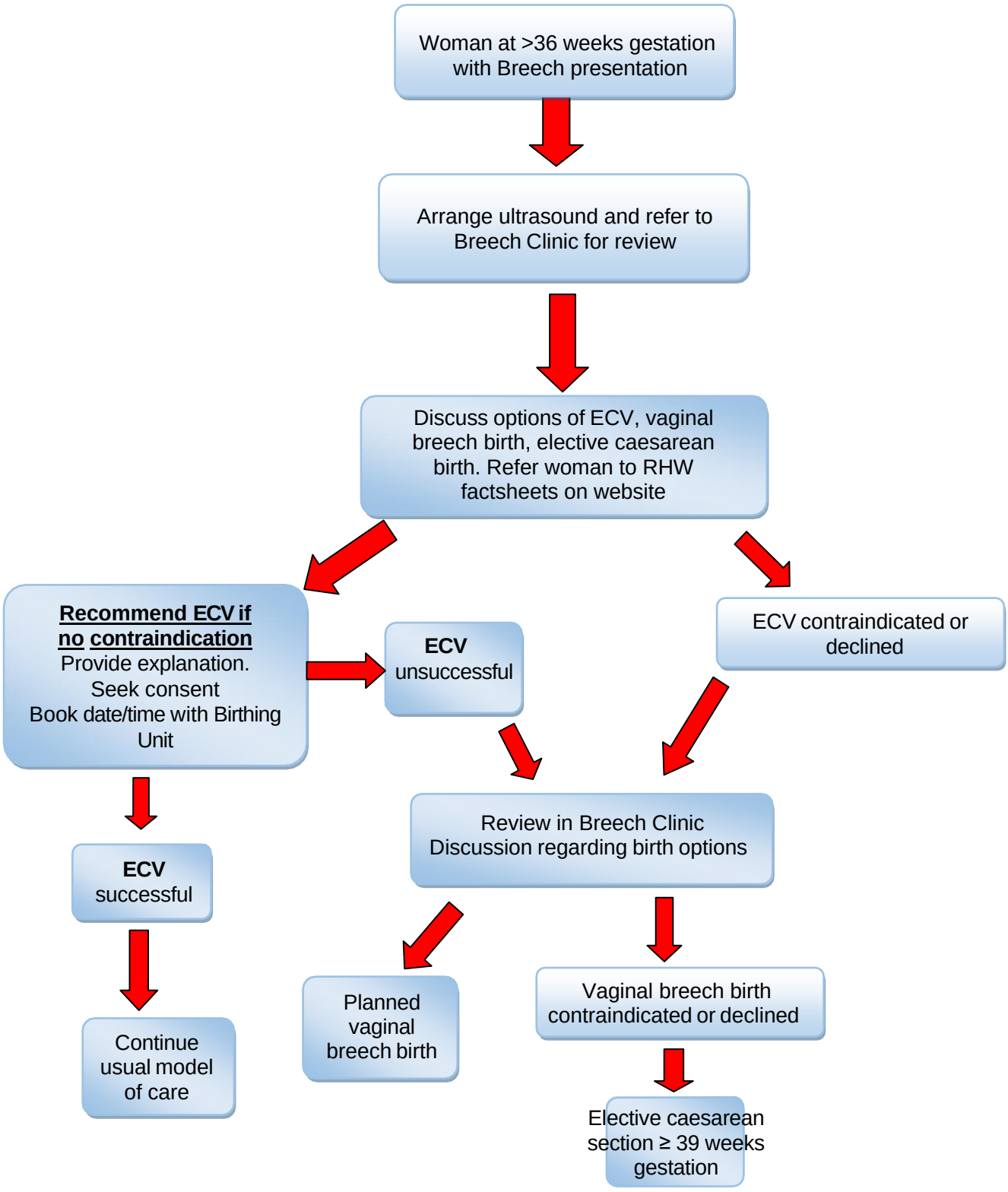
4. CULTURAL SUPPORT

- When clinical risks are identified for an Aboriginal woman, she may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services.
- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

5. REVISION AND APPROVAL HISTORY

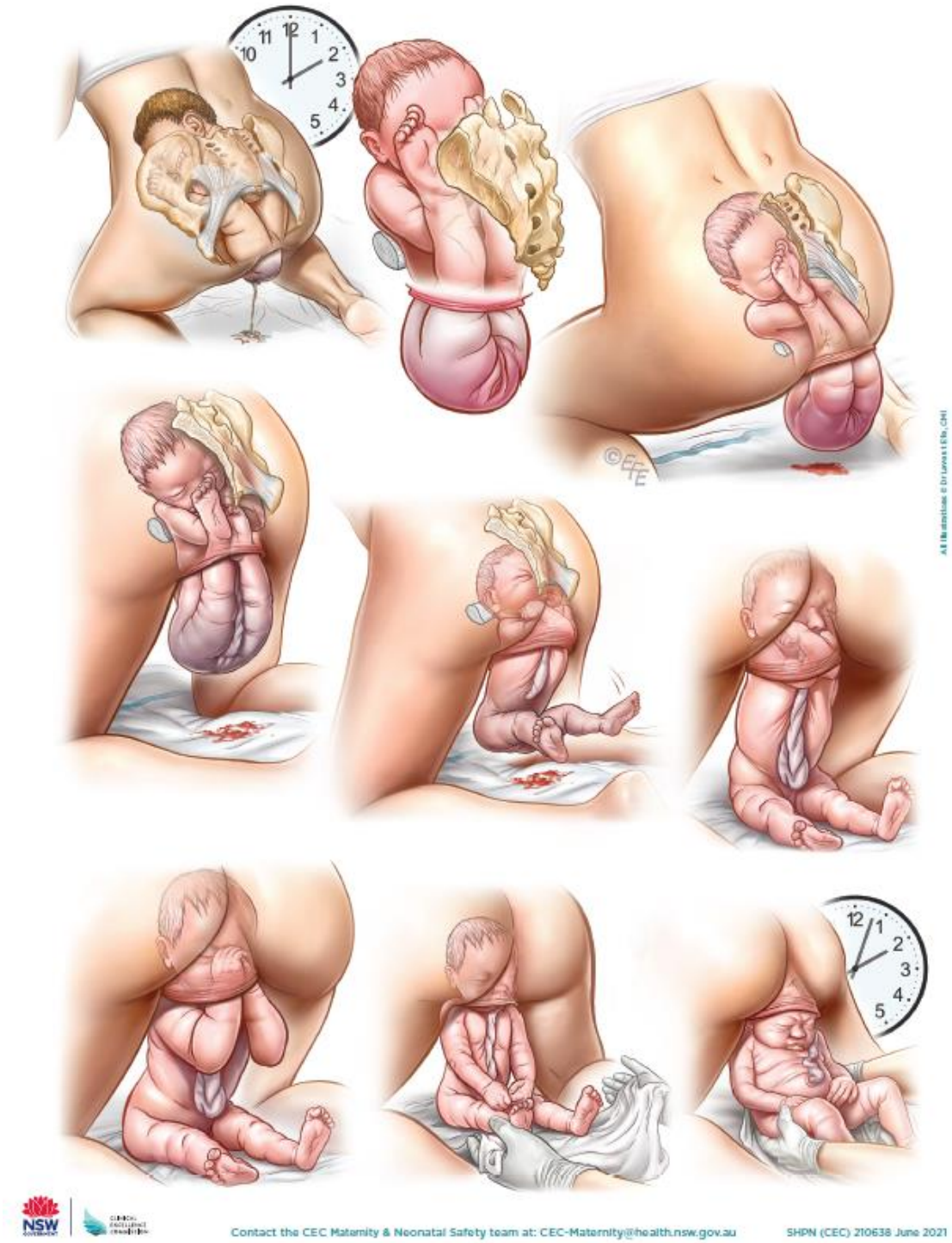
Date	Revision No.	Author and Approval
Endorsed 18.10.23 RHW SQC Reviewed and endorsed Maternity CBR 19/09/2023 Reviewed and endorsed Maternity LOPs 8/5/18 Replaced: Breech Vaginal Birth Guidelines: Approved Clinical Performance & Quality Committee 19/3/07 Maternity Services Clinical Committee 13/3/07 and Breech - Antenatal Management of Term Breech Guidelines: Approved Quality Council 16/5/05 Maternity Services Clinical Committee 19/4/05		

Appendix 1


Woman at >36 weeks gestation with Breech presentation
Arrange ultrasound and refer to Breech Clinic for review
Discuss options of ECV, vaginal breech birth, elective caesarean birth. Refer woman to RHW factsheets on website
Recommend ECV if no contraindication
Provide explanation.
Seek consent
Book date/time with Birthing Unit
ECV unsuccessful
ECV contraindicated or declined
ECV successful
Review in Breech Clinic
Discussion regarding birth options
Continue usual model of care
Planned vaginal breech birth
Vaginal breech birth contraindicated or declined
Elective caesarean section ≥ 39 weeks gestation

Appendix 2

Physiological breech birth



Appendix 3

Assisting a breech birth