HUTT maternity
Hutt Valley Maternity Care

HUTT VALLEY DHB

Document ID: MATY027	Version: 1.0
Facilitated by: Eleanor Martin, Educator	Last reviewed: August 2014
Approved by: Maternity Quality Committee	Review date: August 2016

External Cephalic Version (Procedure) Policy

Hutt Maternity Policies provide guidance for the midwives and medical staff working in Hutt Maternity Services. Please discuss policies relevant to your care with your Lead Maternity Carer.

Purpose

Procedure to provide women, who are carrying a term baby presenting by the breech, with a safe potential alternative to caesarean section and/or a planned vaginal breech birth.

Scope

- All obstetric staff employed by the Hutt Valley DHB
- All midwifery staff employed by the Hutt Valley DHB
- All Hutt Valley DHB maternity access agreement holders.
- Anaesthetic staff
- Neonatal staff

Indications

- Any woman with a breech presentation > 36 weeks gestation
- Live singleton baby

Clinical factors to predict the successful outcome

- Multiparitiy
- Non-frank breech
- Non-anterior placental location
- Maternal weight <65 kg or BMI < 25
- Amniotic fluid index >10

Contra-indications

- Any woman who **does not** wish to have an ECV (including those who do not wish to have a vaginal birth)
- Any contraindication to labour (e.g. placenta praevia, previous classical caesarean section.
- Abnormal electronic fetal heart rate tracing
- Placental abruption/ APH within previous 7 days
- Antepartum haemorrhage
- Multiple pregnancy (except second twin in labour)
- Ruptured membranes
- Bicornuate uterus/major uterine anomaly

Relative contra-indications

- Previous caesarean section
- Previous pregnancy with placental abruption
- Pre-eclampsia
- Oligohydramnios
- Early labour
- Grossly over-distended uterus (major polyhydramnios, macrosomia)
- Grand multiparity (>4)

Risks

- Transient bradycardia during the procedure
- Fetomaternal haemorrhage (1.8% of cases > 4 ml)
- Labour
- Spontaneous rupture of the membranes
- Placental abruption
- Cord accident
- The risk of fetal distress, trauma and/or death is very low and not quantifiable from current data.

Precautions

- A formal ultrasound scan must be performed a week prior to the procedure and a portable ultrasound scan performed in Delivery Suite prior to commencement of the procedure.
- Documentation of the presentation by ultrasound scan must include:
    - Fetal presentation (including type of breech)
    - Fetal position (breech or transverse)
    - Placental location
    - Estimated fetal weight
    - Amniotic fluid volume (deepest pocket)
    - Identification of any fetal anomalies including nuchal cords and/or a hyper-extended head.
    - The ultrasound findings are documented on the ECV record sheet (Appendix I) before the ECV trial begins.
- ECV is 'a gentle art' and should be undertaken by or under the supervision of an experienced clinician.
- This procedure should only be performed in the Delivery Suite at Hutt Hospital
- The cardiotocograph (CTG) must be reactive and non-pathological
- An abdominal palpation / ultrasound scan must occur to assess the presentation/position of the fetus immediately prior to the commencement of the ECV procedure.

Equipment

- Portable ultrasound scanner to assess fetal presentation/lie
- CTG monitor

Procedure

- Women should be given a brochure about ECV (Appendix III) by their lead maternity carer (LMC) or at the time of their first specialist consultation.
- The woman's verbal consent must be obtained after describing the procedure and the related risks.

- The woman is then booked to have this procedure performed in the Delivery Suite at Hutt Valley DHB. She **does not** need to be made 'Nil by Mouth'.
- Baseline observations and CTG to be performed.
- A portable ultrasound scan should be performed prior to commencement of the procedure. The ultrasound findings are documented on the ECV report sheet prior to commencing the procedure (Appendix I).
- IV line inserted. Bloods taken and sent for CBC and Group & Hold
- Tocolysis must be considered for every woman because it increases the likelihood of a successful ECV.
- Terbutaline 0.250 mgs subcut is administered 15-20 minutes prior to the procedure (please refer to contraindications as below).
- After 20 minutes check pulse rate and BP
- Ensure the woman empties her bladder
- The woman then lies in a comfortable position with her knees slightly flexed, and her arms extended along her body.
- The fetal position is palpated in order to identify the back and locate the head. These findings are also documented on the ECV record sheet (Appendix I).
- Lift the breech out of the pelvis and to one side, on the opposite side of the cephalic pole.
- Once the baby has been lifted out of the pelvis, it is often useful to have a second attendant support the breech pole in that position, whereby minimizing the likelihood of the breech returning to the pelvic area. The baby will usually version most easily in a forward somersault. Once the breech has been successfully dislodged from the pelvic basin, the clinician will encourage the fetal head down toward the pelvis. The baby should respond to firm but gentle pressure by moving through the uterine midpoint and into a cephalic presentation.
- Palpation and a portable ultrasound scan should be done to confirm that the baby has moved into a cephalic presentation, and not merely returned to its previous position.
- The wellbeing of the baby is monitored intermittently during the ECV attempt using auscultation or the portable ultrasound scan.

Contraindications regarding the use of terbutaline

Terbutaline sulfate injection is contraindicated in patients known to be hypersensitive to sympathomimetic amines or any component of this drug product.

Terbutaline sulfate, like all other beta-adrenergic agonists, can produce a clinically significant cardiovascular effect in some patients as measured by pulse rate, blood pressure, and/or symptoms. Although such effects are uncommon after administration of Terbutaline sulfate at recommended doses, if they occur, the drug may need to be discontinued. In addition, beta-agonists have been reported to produce electrocardiogram (ECG) changes, such as flattening of the T wave, prolongation of the QTc interval, and ST segment depression. The clinical significance of these findings is unknown. Therefore:

Terbutaline sulfate, like all sympathomimetic amines, should be used with caution in patients with cardiovascular disorders, especially coronary insufficiency, cardiac arrhythmias, and hypertension.

Medicines Act 1981 Requirements

Turbutaline (Bricanyl) 0.5mg Ampoules is not registered for use in New Zealand.

Therefore every woman who receives Turbutaline must be able to make an informed decision regarding its use. Her informed consent must be obtained and documented in the clinical notes by obstetric team. **Standing orders do not cover unlicensed / unregistered medicines.**

A record of women who are supplied this medication must be maintained (Section 29 requirement). A record is maintained in the delivery suite drug room by placing a woman's sticker on the form with the date and consultants name.

Duration of the procedure

- The operator may pause for varying periods of time, to assess the fetal heart rate, and to allow the mother to relax during the procedure.
- However, the total time spent in the actual manipulation of the baby (that is, the time putting pressure on the baby to move or change its position) during any one attempt should not exceed 5 minutes.

Unsuccessful attempts

- If a forward somersault does not prove successful, a manipulation in the backward direction may be attempted.
- With a backward somersault manoeuvre, the primary pressure should be exerted against the fetal breech, in order to enhance flexion of the fetal spine.
- No more than two or three attempts should be undertaken at any one visit and if more than one attempt is made, there should be a resting period of 5 minutes between attempts.

Discontinuing the procedure

- The procedure will be discontinued if:
    - the fetal heart rate is non-reassuring
    - the ECV is not easily accomplished or
    - if the woman reports excessive discomfort.
- Following the procedure the woman must remain under supervision for at least 30 minutes.
- The wellbeing of the fetus will be assessed following the procedure by confirming fetal movements (via ultrasound or clinically) and by recording a reactive fetal heart tracing on the CTG.
- The position of the cord should be checked by portable ultrasound scan.
- Women are provided with instructions as to how and when to contact their midwife or doctor.
- If the ECV is successful, the woman will be asked to remain upright for the next half hour.
- If the ECV is not successful, or the fetus turns back to breech, the procedure may be repeated once on a subsequent visit.

Rhesus negative women

All non-sensitised Rh (D) negative women must have a Kleihauer taken **and** be given anti-D immunoglobulin (125 µg = 625 IU) following their ECV. A larger dose of immunoglobulin is only required if the Kleihauer result is > 4 ml.

Further obstetric management

The ECV Documentation System:

- The woman's details (sticky label) must be entered into the Delivery Suite admission book.
- Please indicate whether the procedure was successful or unsuccessful and place a completed copy of the ECV record sheet into the woman's hospital medical records.
- No change in antenatal care is required but weekly reviews of the fetal presentation are indicated.
- If the fetus is later found to be in a non-cephalic presentation, specialist referral is indicated. Consideration can be given to a further ECV attempt.
- Refer to ECV algorithm (Appendix 4).
- An induction of labour or caesarean section may be allowed to occur on the same day if clinically indicated and if the resources are available.

References

Hofmeyr, G.J., and Kulier, R. *External cephalic version for breech presentation at term.* Cochrane Database of Systematic Reviews [computer file], 2003. (2): p. CD00791.

Hofmeyr, G.J. External cephalic version before term. Cochrane database of systematic reviews
[computer file], 2003. (1): p. CD00790.

Hofmeyr, G.J., and Hannah, M.E. Planned Caesarean section for term breech delivery. Cochrane Database of Systematic Reviews, 2004. (1): p. CD00317.

Hofmeyr, G.J. Interventions to help external cephalic version for breech presentation at term. Cochrane database of systematic reviews [computer file], 2003. (1): p. CD00792.

Lau, T.K., Stock, A., and Rogers, M. Fetomaternal haemorrhage after eternal cephalic version at term. *Australian & New Zealand Journal of Obstetrics & Gynaecology*, 1995. 35, (2), pp. 173 -
174.

M.Kok, J.Chossen *Ultrasound factors to predict the outcome of external cephalic version:a meta-analysis.*

Ultrasound in Obstetric and Gynaecology 2009; 33:76-84

Editorial Group: Cochrane Pregnancy and Childbirth Group

Published Online: 18 JAN 2012

Assessed as up-to-date: 25 NOV 2011

DOI: 10.1002/14651858.CD000184.pub3

Appendices

Appendix I – ECV Record Sheet
Appendix II – ECV Protocol Algorithm
Appendix III – ECV information pamphlet

Informed Consent
The right of a consumer to make an informed choice and give informed consent, including the right to refuse medical treatment, is enshrined in law and in the Code of Health and Disability Consumers' Rights in New Zealand. This means that a woman can choose to decline treatment, referral to another practitioner, or transfer of clinical responsibility. If this occurs follow the process map on page 18 of the Referral Guidelines (Ministry of Health, 2012).

Appendix 1

PATIENT'S STICKER

Date: _____

Gestational Age:

… 34 … 35 … 36 … 37 … 38

… 39 … 40

Blood Group: Anti-D given (if Rhesus negative)

Tocolysis: Terbutaline …

… Other (specify): _____

… Maternal heart rate (at the time of ECV) ----------

Number of attempts:

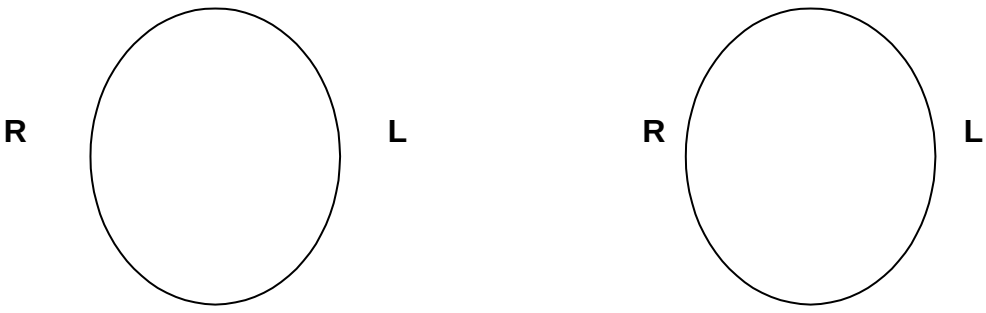
Procedure: Easy Difficult Partial Attempt Only

Successful

Not successful

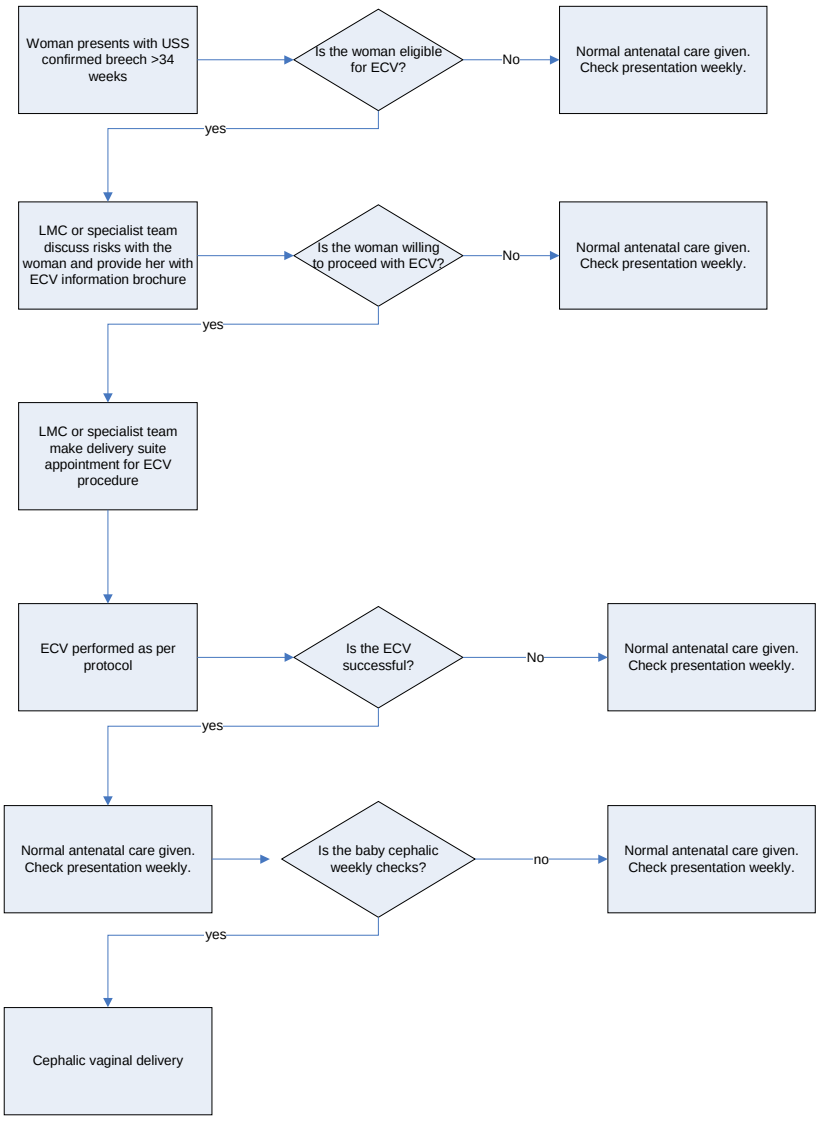
Complications: Bradycardia … Other (please mention): _____

Placental and fetal lie (before and after ECV):



Operator(s):

Appendix 2


Woman presents with USS confirmed breech >34 weeks
Is the woman eligible for ECV?
No
Normal antenatal care given. Check presentation weekly.
yes
LMC or specialist team discuss risks with the woman and provide her with ECV information brochure
Is the woman willing to proceed with ECV?
No
Normal antenatal care given. Check presentation weekly.
yes
LMC or specialist team make delivery suite appointment for ECV procedure
ECV performed as per protocol
Is the ECV successful?
No
Normal antenatal care given. Check presentation weekly.
yes
Normal antenatal care given. Check presentation weekly.
Is the baby cephalic weekly checks?
no
Normal antenatal care given. Check presentation weekly.
yes
Cephalic vaginal delivery