MATERNITY UNIT GUIDELINE:

EXTERNAL CEPHALIC VERSION (ECV)

AUTHOR:	Consultant Obstetrician
SCOPE:	All obstetricians and midwives working in maternity.
PURPOSE:	To inform all health professions of the assessment criteria and procedure for an ECV.
DEFINITIONS:	ECV is a procedure to rotate the fetus from a breech or transverse presentation to a cephalic presentation by external manipulation of the mother's abdomen
INDICATIONS:	Should be offered to women with a non-cephalic fetal lie to improve their chance of a vaginal cephalic birth
ABSOLUTE CONTRAINDICATIONS	• Significant uterine anomaly (eg. bicornuate uterus); • Indications for caesarean birth irrespective of fetal presentation; • Antepartum haemorrhage; • Placenta praevia; • Severe maternal cardiac disease; • Ruptured membranes (given risk of cord prolapse could be considered in theatre) • Abnormal fetal monitoring suggestive of fetal hypoxia; • Hyper-extended fetal head; • Significant fetal anomaly (eg. hydrocephaly); • Abruptio placenta; • Fetal growth restriction (severe and/or abnormal dopplers); • Multiple pregnancy – though may be considered for the second twin after birth of the first twin.
RELATIVE CONTRAINDICATIONS	• Previous caesarean birth; • Previous uterine surgery; • Maternal obesity; • Fetal growth restriction (mild with normal dopplers); • Decreased liquor volume; • Severe pregnancy induced hypertension; • Established labour;
Factors Decreasing Success Rates	• Nulliparity • Anterior, lateral or cornual placenta • Decreased amniotic fluid volume • Low birthweight • Descent of the breech into the pelvis • Obesity • Posteriorly located fetal spine • Firm maternal abdominal muscles

	• Frank breech presentation • Ruptured membranes • Tense uterus • Fetal head not palpable
EQUIPMENT:	Bed CTG monitor IV trolley Ultrasound scanner Tocolytic medication Anti-D immunoglobulin if Rhesus negative
STAFFING:	Theatre to be aware of ECV though they don't need to have an empty theatre on standby. Availability of core midwife to prepare woman and assist obstetrician

ACTION	RATIONALE
All women with an uncomplicated breech or transverse lie in pregnancy at 36-42 weeks, should be offered ECV	To reduce the incidence and attendant risks of elective caesarean section for breech presentation in an otherwise uncomplicated pregnancy
Give information to the woman on ECV – benefits and risks. Risks are minimized if the procedure is performed with the aid of USS and the fetus is monitored during and after the procedure. See Appendix 2 for details of risks Benefits of a successful ECV possibly include: • Reduced chance of a LSCS with benefits to both mother & baby • Reduces risk of future LSCS • Faster recovery & discharge home following the birth • Reduced NNU admissions • Increased bonding with baby • Reduced risks of infection • Reduced postnatal hospital stay	In order for her to make an informed choice
Assessment and consent for this procedure should be completed for this procedure using the standard hospital consent form and recorded in the woman's electronic records	To document consent to the procedure
Liaise with the maternity unit regarding a suitable date and time for the ECV	So that preparations may be made on the day to care safely for the woman
On admission, perform an abdominal palpation	To assess presentation and position of fetus

and a CTG monitoring for at least 20 minutes – longer if necessary to obtain a normal CTG	To provide information on fetal well-being
Baseline maternal observations to be performed – BP & pulse	To provide a baseline of maternal well-being prior to ECV procedure
USS performed by the obstetrician	To assess fetal lie and position of the legs and liquor volume prior to commencing the procedure
Have IV trolley ready	If complications arise during ECV then emergency caesarean section may be indicated
Woman to empty her bladder prior to procedure	Comfort and ease of ECV
Tocolytics to be available as prescribed by the obstetrician – *Terbutaline 0.25mg subcutaneously* 15-30 minutes prior to the procedure. *Salbutamol 0.25mg subcutaneously* 15-30 minutes prior to the procedure. *Salbutamol 5mg diluted in 5mls of normal saline administered via a nebulizer 15 minutes prior to the procedure*	Using tocolytics promotes uterine relaxation and increases the chance of a successful ECV. (For use with women with a needle phobia or O&G preference)
Position woman supine with knees slightly bent (may require Trendelenburg position if fetal buttocks in the pelvis)	Increase chance of successful ECV Reduce aorto-caval compression
ECV performed by obstetrician under USS guidance if fetal status reassuring, confirmed breech or transverse presentation, and maternal informed consent	To turn fetus from breech to cephalic presentation
Stop at any time if woman complains of sharp pain	Risk of placental abruption
Confirm by USS the success or failure of the ECV	Confirm fetus is now in a cephalic presentation
CTG for at least 30-60 minutes following ECV whether successful or not	To confirm fetal well-being
Maternal BP and pulse following procedure	Maternal well-being
If woman is rhesus negative, for Anti-D administration following procedure	In case of iso-immunisation

Ensure the woman knows to report if she experiences any pain or contractions, PV fluid or blood loss or reduced fetal movements following the procedure	So that the woman is informed of symptoms of possible complications and knows to respond.
If successful, woman to return to maternity for a CTG after 24 hours following the procedure and to confirm the fetus has remained cephalic	To check stability of position and fetal wellbeing
If unsuccessful, plan for birth to be discussed	To provide informed consent and options and formulate birth plan

REFERENCES:

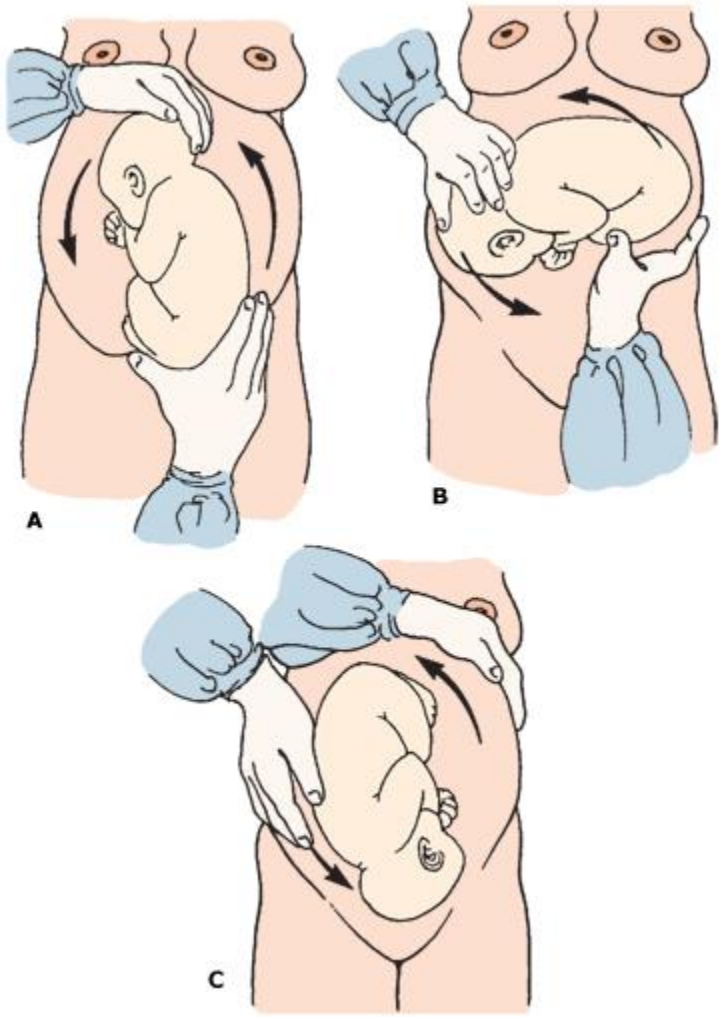
Hofmeyr, G.J. (2012) External cephalic version. Downloaded on 4th October 2015 from: http://www.uptodate.com/contents/external-cephalic-version?source=search_result&search=ECV&selectedTitle=1%7E6

New Zealand Guidelines Group (2004) Care of women with breech presentation or previous caesarean birth

Waikato District Health Board Protocol Breech Presentation page 5 - ECV Procedure. May 2006

Date of Approval: February 2016
Next Review Date: February 2019

Appendix 1
External Cephalic Version



Fetus is converted from breech to vertex presentation in (A-C)
Hofmeyr, G.J. (2009) External cephalic version. Downloaded on 16 February 2010 from:
http://www.utdol.com/online/content/topic.do?topicKey=pregcomp/22620&selectedTitle=1%7E150&source=search_result

Appendix 2 - Risks of external cephalic version, pooled risk

Outcome	Percent
Overall risk of complications	6.1
Transient fetal heart rate changes	4.7
Fetomaternal transfusion	0.9
Emergency cesarean delivery	0.4
Vaginal bleeding	0.3
Ruptured membranes	0.2
Fetal death	0.2
Placental abruption	0.2
Cord prolapse	0.2

Hofmeyr, G.J. (2012) External cephalic version. Downloaded on 15th February 2012 from: http://www.uptodate.com/contents/external-cephalic-version?source=search_result&search=ecv&selectedTitle=1%7E4