

# **External cephalic version**

**Reducing the CS rate  
The role of the anaesthetist**

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# External cephalic version

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- A bit about breech presentation
- A bit about ECV
- What are the options?
- What should we be doing?
- Are we doing it?

*With thanks to:*

• *Richard George*



• *Angus Rivers*



• *Natasha Singh*



# Breech presentation

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- 3-4% of pregnancies
- Maternal age, nulliparity, uterine abnormality, multiple pregnancies, prematurity, low birth weight
- Frank, complete, footling, kneeling
- Vaginal breech delivery:
  - umbilical cord prolapse / compression, head entrapment
  - Term Breech Trial 2000:
    - 5.0% risk of peri- / neonatal mortality / morbidity vs 1.6% for planned CS
    - no difference in maternal mortality / morbidity

*Hannah et al, Lancet 2000*

# Caesarean section for breech

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- Problems of CS in general
- De-skilling of obstetricians

# Turning a breech baby

- Plenty of 'alternative' methods, e.g.:

- Positional

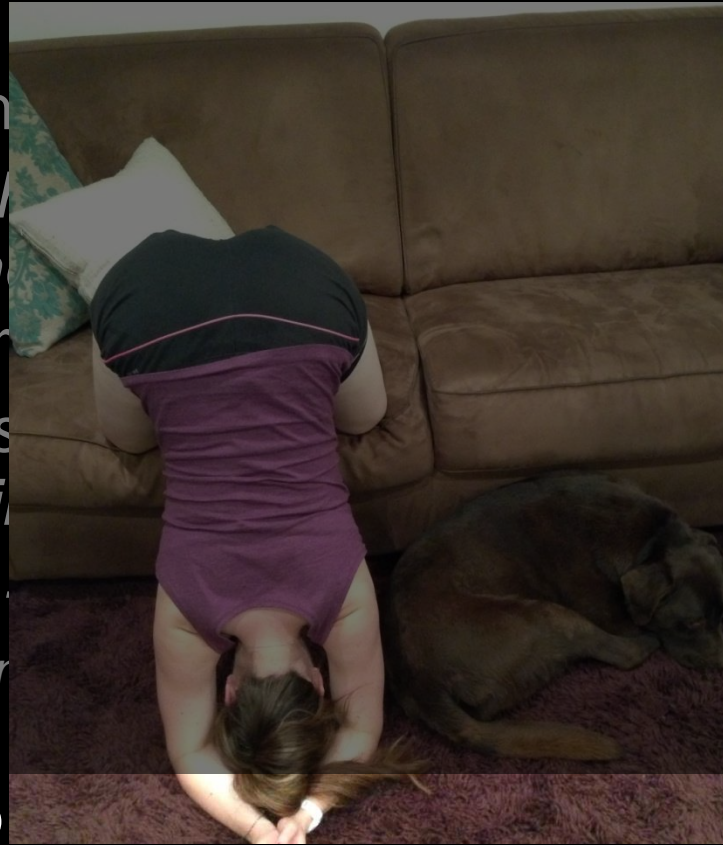
- Moxibustion

- “place earplugs and play music for the baby to move toward”

- “shine a flashlight slowly moving it around the head to be...”

[http://www.netmums-52/108036-](http://www.netmums-52/108036-turning-breech-babies-all.html)

- External cephalopelvic version



[maternal-instincts.com.au](http://maternal-instincts.com.au)

...s  
...pic bone and play  
...well and may  
...ar better”

...belly and then  
...want the baby's  
...ard the light”

...-64/netmums-52/108036-  
...ing-breech-babies-all.html

# External cephalic version

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- Overall success rates 30-50%
- VD rates up to 80% if successful; overall NNT ~3
- Generally considered safe:
  - transient abnormal FH pattern 5 – 6%
  - persistent pathological FH pattern 0.4%
  - vaginal bleeding 0.5%
  - placental abruption 0.1%
  - emergency caesarean section 0.4%
  - perinatal mortality 0.1 – 0.2%
- Advised by NICE, RCOG, ACOG

*Collaris & Oei, Acta Obstet Gynecol Scand 2004*  
*Hofmeyr & Kulier, Cochrane Database Syst Rev 2012*  
*de Hundt et al, Obstet Gynecol 2014*

# Breech presentation

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- Commonly leads to CS
- Reduced by ECV, therefore:
  - i) increase the use of ECV
    - maternity units
    - mothers
  - ii) increase the success rate of ECV
    - parity; uterine tone / tocolysis; liquor volume; fetal position & engagement; gestation; skill of operator

# Breech presentation

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- Commonly leads to CS
- Reduced by ECV, therefore:
  - i) increase the use of ECV
    - maternity units
    - mothers
  - ii) increase the success rate of ECV
    - parity; uterine tone / **tocolysis**; liquor volume; fetal position & engagement; **gestation**; **skill of operator**
    - **regional anaesthesia**



# Regional anaesthesia for ECV

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- RA increases success rates of ECV:
  - x 1.5 – 2
  - from 31-58% (control) to 44-87% (RA)
  - NNT ~5

*Lavoie & Guay, Can J Anesth 2010*

*Sultan & Carvalho, IJOA 2011*

*Goetzinger et al, Obstet Gynecol 2011*

- Mean saving of \$276 per ECV done under RA

*Carvalho et al, Anesth Analg 2011*

- Regional *anaesthesia* better than *analgesia*
- How; when; what if it fails?

# Breech presentation

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- Commonly leads to CS
- Reduced by ECV, therefore
  - i) increase the use of ECV
  - ii) increase the success rate of ECV (...with RA)
- Are we doing this?
  - telephone survey of all hospitals in England, 2013
  - only 3/164 (0.02%) units offer RA
- Possible reasons:
  - lack of awareness / local evidence
  - resistance to change
  - lack of resources / impetus; difficult to set up

*George & Yentis, IJOA 2014*

# Breech presentation

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- Commonly leads to CS
- Reduced by ECV, therefore
  - i) increase the use of ECV
  - ii) increase the success rate of ECV
- What's needed now:
  - informed discussion within units
  - look at what the mothers want

# Selling ECV to mothers?

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- Fear of pain a major reason for refusal

*Rosman et al, Midwifery 2013*

*Vlemmix et al, J Psychosom Obstet Gynaecol 2013*

- ? Better pain relief

*George et al, Anaesthesia 2013*

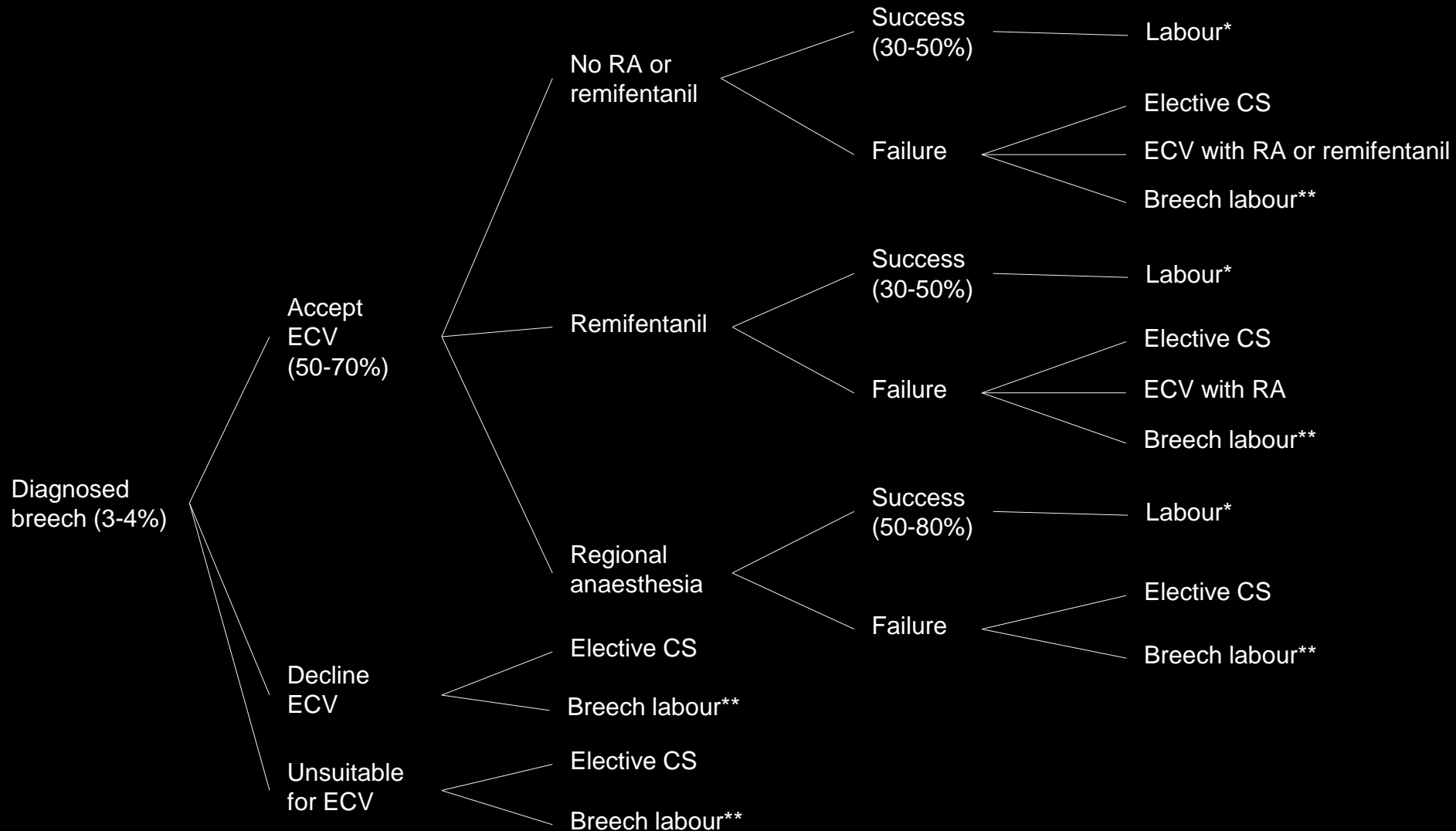
*Munoz et al, IJOA 2014*

- ? Better understanding of mothers' preferences

*Rivers et al, Anaesthesia 2014*

*ongoing research*

# Selling ECV to mothers?



# Conclusions

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- What we know:
  - breech is common and commonly leads to CS
  - ECV reduces it but not all women are offered ECV
  - RA increases success rates but is rarely used
  - remifentanyl seems to help pain but not success rates
  - why mothers do and don't choose ECV is complex
- What we need to do:
  - have proper discussions in our units
  - find out more about mothers' preferences
  - be involved

Thank you  
Thank you