

Midwife-led Care *Evidence for change*

Declan Devane
National University of Ireland Galway

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Midwife-led versus other models of care for childbearing women

	What the review authors searched for	What the review authors found
Interventions	Randomised controlled trials comparing midwife-led care to other models of care	11 randomised controlled trials.
Participants	Pregnant women classified as being at low or mixed risk of complications.	12, 276 pregnant women recruited from both community and hospital settings
Settings	Not pre-specified.	Australia (5 studies), Canada(1 study), UK (5 studies)
Outcomes	Antenatal, labour, delivery and immediate postpartum, neonatal, and maternal postpartum outcomes.	Antenatal, labour, delivery and immediate postpartum, neonatal, and maternal postpartum outcomes.

- Hatem M, Sandall J, Devane D, Soltani H, Gates S. Midwife-led versus other models of care for childbearing women. *Cochrane Database of Systematic Reviews* 2008, Issue 4. Art. No.: CD004667. DOI: 10.1002/14651858.CD004667.pub2.

Antenatal outcomes

- Five randomised trials reported data on antenatal hospitalisation, nine reported on foetal loss before 24 weeks, and 10 on overall fetal loss and neonatal death. A synthesis of these trials shows that:
- Midwife-led care leads to fewer foetal deaths before 24 weeks of gestation and fewer antenatal hospitalisations than other models of care.

Labour outcomes

- Ten randomised controlled trials reported data on augmentation/artificial oxytocin during labour, five reported on use of intra-partum analgesia/anaesthesia, and 10 on induction of labour. Pooling these results together show that:
- Midwife-led care decreases the use of analgesia or anaesthesia during labour.
- Midwife-led care leads to little or no difference in augmentation or induction of labour from other models of care.

Birth and immediate postpartum outcomes

- RCTs that reported neonatal and maternal postpartum outcomes show that:
- Midwife-led model of care leads to less episiotomies and instrumental vaginal births compared to other models of care.
- Midwife-led model of care leads to little or no difference in incidence of Caesarean sections or postpartum haemorrhage compared to other models of care.
- Midwife-led care leads to increased likelihood of attendance at birth by a known midwife, perceptions of control during labour, breastfeeding initiation, increased satisfaction with childbirth experience and slightly more spontaneous vaginal births than other models of care.

Neonatal and maternal postpartum outcomes

- RCTs that reported neonatal and maternal postpartum outcomes show that:
- Midwife-led care leads to little or no difference in incidence of low-birth weight and preterm birth.

Conclusions of Cochrane review

- 'Most women should be offered midwife-led models of care and women should be encouraged to ask for this option although caution should be exercised in applying this advice to women with substantial medical or obstetric complications.'

The MidU Study

- A study that sought to compare the effects of midwife-led and consultant-led care for healthy women without risk factors, on outcomes during pregnancy, labour and delivery.
 - *Begley CM, Devane D, Clarke M. (2009) An evaluation of midwifery-led care in the Health Service Executive North Eastern Area- The MidU Study. Available from: <http://www.hse.ie/eng/services/Publications/services/Hospitals/midwifery%20north%20east.pdf>

Methods

- Two-centre, two-group, randomised trial (ISRCTN 14973283) funded by the Health Service Executive -North East (Ireland).
- Following ethical approval, women attending two maternity units (Drogheda and Cavan) who were assessed as 'low risk' were randomised, following informed consent to receive either consultant-led (CLU) care, or midwifery-led (MLU) care in an integrated midwifery-led unit.

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Midwife-led model of care

- 'Alongside' Midwifery-led service
- Women without risk factors for pregnancy and labour
- Women can share their antenatal care between the midwifery-led unit and their GP
- Stay up to 48hrs
- Postnatal care by MLU midwives in women's home up to and including day 7
- Care subsequently transferred to Public Health Nurse

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Antenatal transfers (from MLU)

- 384 women (35%) were temporarily transferred to the CLU in pregnancy
- Most common reasons for transfer
 - abdominal pain, backache or contractions
 - vaginal bleeding or spotting
 - review post the woman's due date with a view to induction of labour
 - reduced fetal movements

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Antenatal transfers (from MLU)

- 492 women (45%) were permanently transferred to the CLU
- Mainly for induction of labour (>40%)

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Primary outcome measures

- Seven primary outcomes showed no statistically significant difference between MLU and CLU
 - caesarean birth
 - induction of labour
 - episiotomy
 - instrumental birth
 - Apgar scores less than 8
 - postpartum haemorrhage (PPH) initiation of breastfeeding

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Primary outcome measures

- MLU women were significantly less likely to receive:
 - continuous EFM or
 - have labour augmented by amniotomy or with oxytocin

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Selected Secondary outcome measures

- Women randomised to MLU had significantly fewer:
 - mean ultrasound examinations and
 - antenatal cardiotocographs

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Selected Secondary outcome measures

- No significant difference was found between MLU and CLU in numbers who:
 - had at least one antenatal admission
 - experienced any pregnancy complication or
 - fetal loss prior to 24 weeks

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Neonatal outcome measures

- Neonatal outcomes showed no statistically significant difference between MLU and CLU in:
 - paediatric care
 - required facial oxygen
 - bag-and-mask resuscitation
 - admission to special care baby unit (SCBU)
- There were two early neonatal deaths in MLU (0.18%), two (0.36%) in CLU, and one (0.1%) fetal loss at > 24 weeks in MLU.

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Conclusion of MidU

- Midwifery-led care, as practised in the MidU Study, is as safe as consultant-led care and is associated with less intervention.
- This study supports the recommendation of the Cochrane review on midwife-led models of care that midwifery-led care should be offered to most women.

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Thank You

declan.devane@nuigalway.ie