

Evidence Update

Summary of a Cochrane review

Maternal Health Series

In term babies, is it best to clamp the umbilical cord immediately at delivery or wait?

Late clamping increases haemoglobin, but jaundice is more common.

Background

Policies about when to clamp the cord vary. Early clamping may speed delivery of the placenta, whilst late clamping may allow increase average haemoglobin values in the baby.

Inclusion criteria

Studies:

Randomized controlled trials.

Participants:

Women and their babies, if born at term.

Intervention:

Clamping early (< 1 minute after birth) vs. late (> 1 minute after birth).

Selected outcomes:

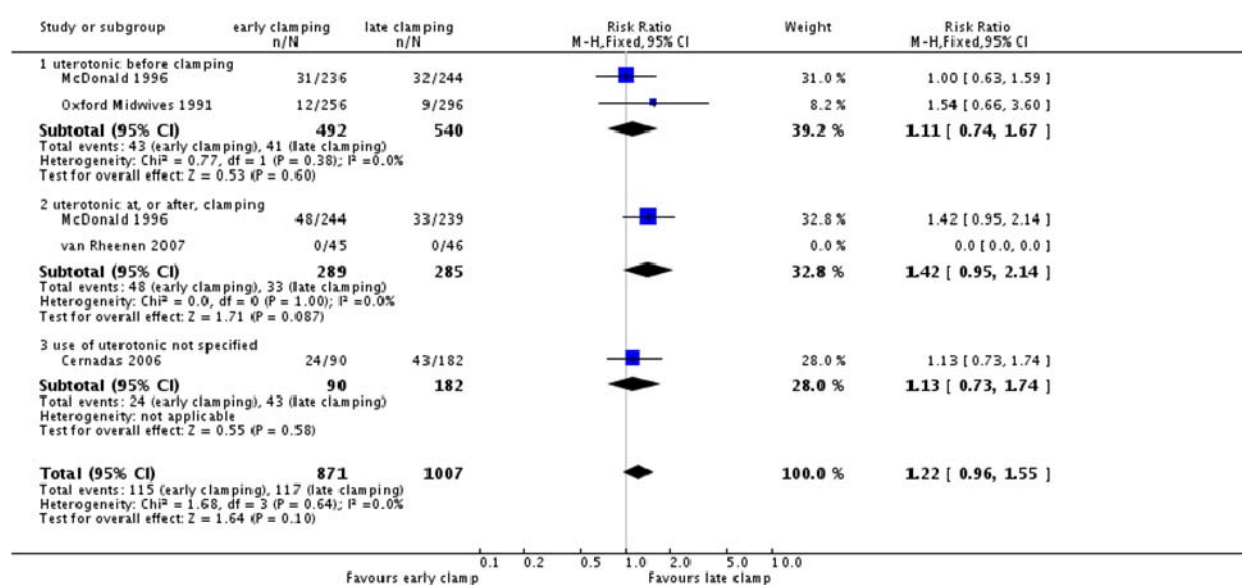
Postpartum haemorrhage (PPH) (blood loss over 500 ml), severe PPH (blood loss over 1000 ml), need for manual removal of the placenta.

In the baby: Apgar score, admission to special unit, respiratory distress, haemoglobin levels, ferritin levels, and jaundice requiring phototherapy.

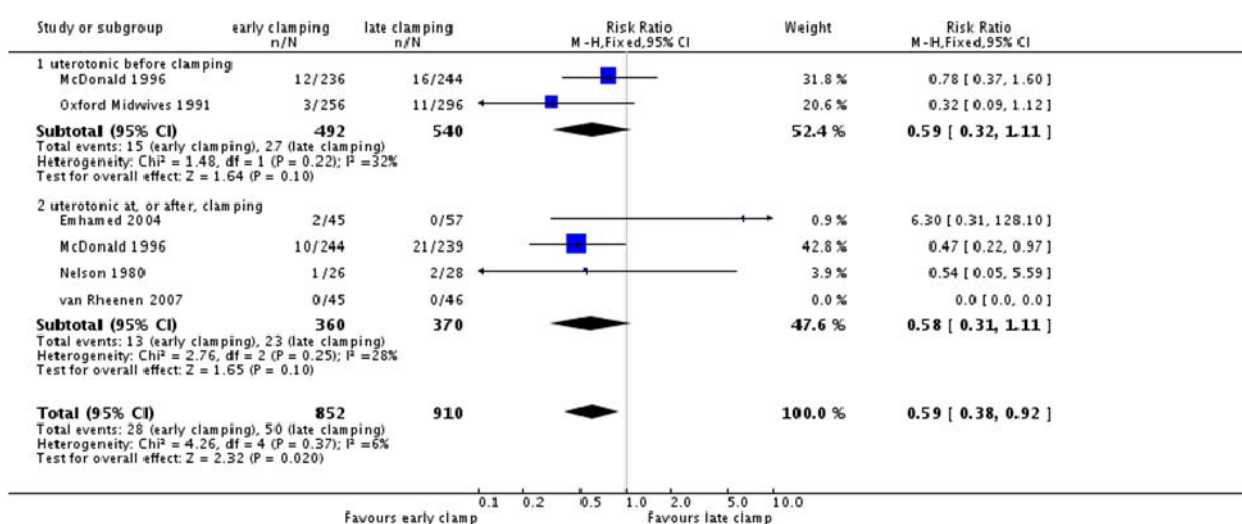
Results

- Included 11 trials (2989 women), 5 adequate concealed.
- In four trials (1684 women), no differences for PPH or severe PPH were shown.
- One trial (963 women) did not show a difference in blood loss or need for manual placental removal.
- In the babies, Apgar scores were similar at five minutes (1342 infants, 2 trials), as were admissions to admission to special units (1293 babies, 3 trials).
- At birth, haemoglobin levels were lower with early clamping (weighted mean difference -2.17; 95% confidence interval -4.06 to -0.28; 671 babies, 3 trials), and anaemia was more common (relative risk 16.18, 95% CI 2.05 to 127.37; 272 babies, 1 trial); and at six months, ferritin levels were significantly lower (WMD 11.80 ug/L; 95% CI 4.07 to 19.53; 1 trial, 315 babies).
- However, fewer babies in the early cord clamping group required phototherapy for jaundice (RR 0.59, 95% CI 0.38 to 0.92; 1762 babies, 5 trials).

Early vs late clamping: post partum haemorrhage more than 500ml



Early vs late clamping: jaundice in the newborn requiring phototherapy



Authors' conclusions

Implications for practice:

Delayed cord clamping may be of benefit in promoting better iron stores in infants, but may also increase the risk of severe jaundice in the newborn.

Implications for research:

Future trials should compare maternal outcomes such as post partum haemorrhage, longer term follow-up of iron status in the mother, physical and psychological health of mothers, as well as short and longer term neonatal and infant outcomes such as neurodevelopment.



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