Hospitalisation and bed rest for multiple pregnancy

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RHL summary

Findings of the review: This review attempts to answer the question whether bed rest in hospital for women with a multiple pregnancy has any effect on preterm birth and other fetal, neonatal and maternal outcomes. This review includes seven high-quality trials (713 women and 1452 babies) undertaken in Australia, Finland and Zimbabwe. Application of a policy of hospitalization for bed rest for multiple pregnancy did not reduce risk of preterm birth or perinatal mortality. There was considerable heterogeneity with respect to two outcomes: stillbirth and perinatal death. The number of low-birth-weight infants (less than 2500 g) was lower in the intervention group, though this outcome did not reach statistical significance. No improvement was seen in secondary outcomes such as depressed Apgar scores (less than seven), need for admission and length of stay of seven days or more in the neonatal unit, developing hypertension and caesarean delivery. Only one trial reported data on women’s satisfaction with bed rest in hospital: 18% women found hospitalization “psychologically distressing” and 6% appreciated admission to hospital. No difference in maternal or neonatal outcomes was seen in women with an uncomplicated twin pregnancy, cervical dilation prior to labour, a twin pregnancy, and with a triplet pregnancy.

Implications
There is no evidence to recommend a policy of routine hospital admission for bed rest in women with multiple pregnancy.

Cochrane review

Citation: Crowther CA, Han S. Hospitalisation and bed rest for multiple pregnancy. Cochrane Database of Systematic Reviews 2010, Issue 7. Art. No.: CD000110. DOI: 10.1002/14651858.CD000110.pub2.10.pub2

Abstract

Bed rest used to be widely advised for women with a multiple pregnancy.

The objective was to assess the effect of bed rest in hospital for women with a multiple pregnancy for prevention of preterm birth and other fetal, neonatal and maternal outcomes.

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (May 2010).

Randomised trials which compare outcomes in women with a multiple pregnancy and their babies who were offered bed rest in hospital with women only admitted to hospital if complications occurred.
The review authors carried out assessment for inclusion and risk of bias of the trials. We extracted and
double entered data, and used a random-effects model.

We included seven trials which involved 713 women and 1452 babies. Routine bed rest in hospital for
multiple pregnancy did not reduce the risk of preterm birth, or perinatal mortality. There was substantial
heterogeneity related to perinatal death and stillbirth unaccounted for by trial quality. There was a suggestion
of a decreased number of low birthweight infants (less than 2500 g) born to women in the routinely
hospitalised group (risk ratio (RR) 0.92; 95% confidence interval (CI) 0.85 to 1.00). No differences were
seen in the number of very low birthweight infants (less than 1500 g). No support for the policy was found
for other neonatal outcomes. No information is available on developmental outcomes for infants in any of
the trials.

For the secondary maternal outcomes reported of developing hypertension and caesarean delivery, no
differences were seen. Women's views about the care they received were reported rarely.

In the subgroup analyses for women with an uncomplicated twin pregnancy, with cervical dilation prior to
labour with a twin pregnancy and with a triplet pregnancy, no differences were seen in any primary and
secondary neonatal outcomes and maternal outcomes.

There is currently not enough evidence to support a policy of routine hospitalisation for bed rest in multiple
pregnancy. No reduction in the risk of preterm birth or perinatal death is evident, although there is a
suggestion that fetal growth may be improved. For women with an uncomplicated twin pregnancy the results
of this review show no benefit from routine hospitalisation for bed rest. Until further evidence is available,
the policy cannot be recommended for routine clinical practice.

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