

# MULTIPLE PREGNANCY SYNTHESIS RESEARCH GAPS FROM COCHRANE REVIEWS (Cochrane Library Issue 2, 2010)

The faces indicate the direction of findings in each review:

- ☺ Likely to be effective
- ☹ Both benefits and risks
- ❓ Uncertain or limited effect
- ☹️ Likely to be ineffective or potentially harmful

*Important research implications are more likely to arise from  
❓ reviews with uncertain findings*

or where

☹️ *the risks and benefits are mixed.*

## CONTENTS: PREGNANCY LABOUR POSTNATAL

### Pregnancy

#### ❓ Elective delivery of women with an uncomplicated twin pregnancy from 37 weeks' gestation (Dodd 2003a)

*In one included trial, there were no statistically significant differences between elective induction of labour and expectant management for caesarean births, perinatal death, and haemorrhage requiring blood transfusion.*

*Review content assessed as up-to-date: 28 July 2009.*

- Need well designed randomised controlled clinical trials to determine optimal timing of birth for women with an otherwise uncomplicated twin pregnancy at term.

#### ❓ Reduction of the number of fetuses for women with triplet and higher order multiple pregnancies (Dodd 2003b)

*There were no randomised controlled trials identified but evidence from non-randomised studies shows a reduction to twins is associated with a reduced risk of pregnancy loss, birth before 36 weeks, and neonatal death.*

*Review content assessed as up-to-date: 24 September 2009.*

- A prospective patient preference trial, with adherence to strict eligibility criteria, may provide more information about the risks and benefits of this procedure.

#### ❓ Specialised antenatal clinics for women with a multiple pregnancy to improve maternal and infant outcomes (Dodd 2007)

*There are no included studies.*

*Review content assessed as up-to-date: 18 December 2006.*

- Needs evaluation in appropriately powered and designed randomised controlled trials.

### ☹ **Hospitalisation and bed rest for multiple pregnancy (Crowther 2001)**

*Routine bed rest in hospital for multiple pregnancy did not reduce the risk of preterm birth, or perinatal mortality.*

*Review content assessed as up-to-date: 30 September 2000*

- Need to evaluate the policy for hospitalisation for bed rest in women considered at higher than average risk of preterm birth and at gestational ages considered at greatest risk.
- Need trials to further assess the favourable effects on fetal growth, impacts on other obstetric populations (like women with triplet pregnancies) and other racial groups, to assess costs and to test the hypothesis that women receiving hospitalisation for bed rest have a decreased risk of developing hypertension.
- Need data on long term developmental outcomes for the infants and women's views of the care received.

### ❓ **Interventions for the treatment of twin-twin transfusion syndrome (Roberts 2008)**

*In two included studies laser coagulation of anastomotic vessels resulted in less death of both infants per pregnancy, less perinatal death and less neonatal death than in pregnancies treated with amnioreduction.*

*Review content assessed as up-to-date: 30 January 2008*

- Need randomised evaluation of interventions such as septostomy, serial amniocentesis and placental laser ablation with regard to their respective effect on very mild forms of twin-twin transfusion syndrome (Quintero stage 1).
- Future studies should include evaluation of effects on maternal satisfaction and economics.

### ❓ **Prophylactic oral betamimetics for reducing preterm birth in women with a twin pregnancy (Yamasmit 2005)**

*Prophylactic oral betamimetics were not shown to be effective for reducing preterm birth in women with a twin pregnancy.*

*Review content assessed as up-to-date: 29 October 2004.*

- Need more trials of interventions to prevent preterm birth in women with a twin pregnancy.
- A trial to test the ability of betamimetics to reduce the rate of preterm birth (less than 34 weeks' gestation) by 50% at a 0.05 significance level and a power of 90%, would need a sample size of 524 twin pregnancies in each group.
- Need to not only report the incidence of preterm birth, but also the incidence of precisely defined immaturity-related neonatal morbidities and longer term childhood outcomes.

## Labour

### ⊖ Caesarean delivery for the second twin (Crowther 1996)

*In one included trial, maternal febrile morbidity was increased in women allocated to the caesarean group, and there was a trend to an increased need for use of general anaesthesia, with no differences detected in neonatal outcomes.*

*Review content assessed as up-to-date: 31 January 2007*

- Need trials to assess the policy of caesarean section for a second twin not presenting cephalically increases maternal morbidity.

### ? *Planned caesarean section for women with a twin pregnancy (Hofmeyr 2007)*

*Cochrane protocol, Cochrane review in progress.*

## Postnatal

### ? *Co-bedding in neonatal nursery for promoting growth and neurodevelopment in stable preterm twins (Lai 2010)*

*Cochrane protocol, Cochrane review in progress.*

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