

DIABETES IN 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.*

❓ **Alternative strategies for diagnosing gestational diabetes mellitus to improve maternal and infant health (Farrar 2008)**

Cochrane protocol, Cochrane review in progress.

❓ **Continuous subcutaneous insulin infusion versus multiple daily injections of insulin for pregnant women with diabetes (Farrar 2007)**

There is not enough evidence to distinguish between different ways of administering insulin for pregnant women with diabetes.

Review content assessed as up-to-date: 20 May 2007.

- Need a large multi-centre randomised controlled trial that is robustly administered and adequately powered to investigate the efficacy of continuous subcutaneous insulin infusion as opposed to multiple daily injections in those women with type 1, type 2 and gestational diabetes who require insulin therapy
- Need to include outcomes such as perinatal mortality, fetal anomaly, hypoglycaemic/hyperglycaemic episodes requiring intervention, admission and length of stay on special care baby unit due to hypoglycaemia in any future trials.

❓ **Dietary advice in pregnancy for preventing gestational diabetes mellitus (Tieu 2008)**

There is not enough evidence to show benefit of a low glycaemic index diet or high-fibre diet in pregnancy for preventing gestational diabetes mellitus.

Review content assessed as up-to-date: 31 January 2008.

- Need large, high-quality trials of dietary intervention for preventing gestational diabetes
- Need long-term trials in healthy pregnant women given dietary advice specifically for a low glycaemic index diet versus a control diet to assess the effects of these diets on future type 2 diabetes mellitus development in mother and child, and future gestational diabetes, in addition to perinatal outcomes

❓ **Different techniques of blood glucose monitoring in women with gestational diabetes for improving maternal and infant health (Pelaez-Crisologo 2009)**

Cochrane protocol, Cochrane review in progress.

❓ Elective delivery compared with expectant management in term diabetic pregnant women (Boulvain 2004)

Induction of labour can reducing the risk of macrosomia in women with diabetes, but no effects regarding maternal or neonatal morbidity outcomes were seen.

Review content assessed as up-to-date: 6 July 2004.

Need further large RCTs to evaluate elective delivery in diabetic pregnant women, assessing anxiety (due to unexpected fetal distress) and maternal inconvenience because of surveillance and treatment with insulin

❓ Exercise for diabetic pregnant women (Ceysens 2006)

Exercise during pregnancy has not been shown to have effects on maternal and perinatal outcomes in women with diabetes.

Review content assessed as up-to-date: 2 May 2006.

Need further large RCTs involving women with gestational diabetes, and possibly type 2 diabetes

❓ Oral anti-diabetic agents for women with pre-existing diabetes mellitus/impaired glucose tolerance or previous gestational diabetes mellitus (Tieu 2009)

Cochrane protocol, Cochrane review in progress.

❓ Preconception care for diabetic women to improve maternal and infant health (Tieu 2009)

Cochrane protocol, Cochrane review in progress.

❓ Screening for gestational diabetes mellitus for improving maternal and infant health (Tieu 2008)

Cochrane protocol, Cochrane review in progress.

😊 Treatments for gestational diabetes and impaired glucose tolerance in pregnancy (Alwan 2009)

Specific treatment in pregnancy including dietary advice and insulin for gestational diabetes mellitus is beneficial for reducing the risk of preeclampsia, macrosomia, and perinatal morbidity, although it is associated with higher risk of labour induction.

Review content assessed as up-to-date: 30 October 2008.

- Need large RCTs to determine the perinatal benefit of monitoring and treating women with abnormalities of glucose tolerance during pregnancy
- Need consistent definitions for the diagnosis of gestational diabetes and impaired glucose tolerance in pregnancy
- Need a better understanding of the association between increased birth weight and glucose values

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