Gestational diabetes mellitus (GDM) is an increasing problem world-wide. It may have serious consequences for mothers and babies.

What is GDM and does it matter?
GDM is ‘carbohydrate intolerance resulting in hyperglycaemia of variable severity with onset or first recognition during pregnancy’. GDM is associated with a number of adverse perinatal outcomes (including intrauterine death, macrosomia, neonatal metabolic abnormalities, Caesarean section, and pregnancy-induced hypertension) and longer term morbidities in both mother and child.

Aim
To compare the impact of different lifestyle strategies on the risk of developing GDM in women with BMIs greater than 29 kg/m².

Methodology
DALI is a multicentre, randomised trial across 11 centres in 9 European countries. The study comprised one pilot trial and two RCTs – which tested and compared three interventions: healthy eating, physical activity, and/or giving Vitamin D. 440 women were recruited to each RCT, giving a total of 880 women overall. Each participant was closely monitored by blood tests, questionnaires, measurements and additional fetal ultrasound scans according to the study schedule for approximately 7 months.

Results
Different degrees of weight gain were found with the different interventions, weight gain increased after 28/52 and many women were able to restrict their weight gain to the target of 5kg. Analyses is ongoing (recruitment is continuing at some EU sites) and results will be published during 2015 and 2016.

Discussion
It is anticipated that findings from the DALI study will be translated into NICE and European standards for antenatal care and also direct future research to ensure that women with raised BMIs across Europe receive effective support to prevent GDM.

Role of the Cambridge Clinical Research Facility
In the past two years the Cambridge CRF provided a safe, clinical environment for the study visits by the 128 pregnant participants of the trial (three visits per participant).

The CRF nursing staff assisted with cannulation for Oral Glucose Tolerance Tests (OGTTs), blood sampling and close monitoring throughout each visit, as well as providing meals.

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References


References:
- http://www.biomedcentral.com/1471-2393/13/142

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