

OP09.12 Incidence of fetal congenital malformations in women with type 1 and type 2 diabetes in pregnancy in a large multi-ethnic UK region.

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Background : West Midlands Cohort Analysis

Out of the National UK CEMACH diabetes in Pregnancy Programme the West Midlands commissioned its own regional analysis of the outcomes & care provided in pregnancies complicated by maternal type 1 & 2 diabetes in 2002-03.

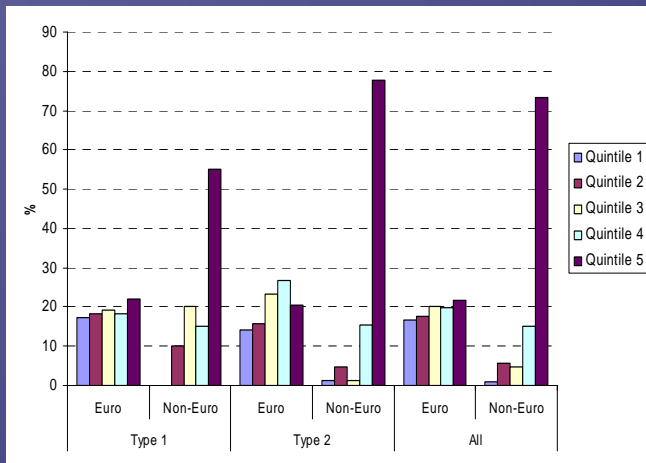
The West Midlands (WM) is a large central region of the UK with a diverse ethnic population mix including 17.5% Asian ethnicity. Major congenital malformations were coded according to ICD10 and using EUROCAT classification. Minor anomalies were excluded.

Key Population Results

405 women with type 1 or 2 diabetes registered between 01/03/02 and 28/02/03.

426 babies of which 370 were alive at 28 days.

32 pregnancies with a major congenital abnormality (CA).



35% of the cohort in WM were affected by type 2 diabetes, a significantly greater proportion than nationally ($p < 0.01$). The majority of these women are Asian, multiparous and almost completely located in the areas of highest social deprivation.

Congenital Malformations

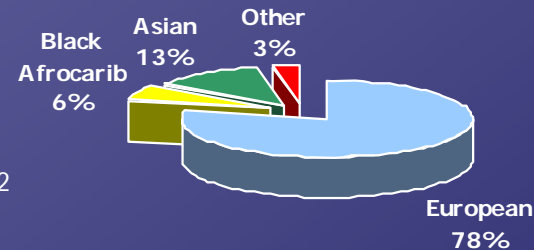
Major Congenital Malformation rate = 82.1/1000 livebirths.

Outcomes : 7 early fetal losses

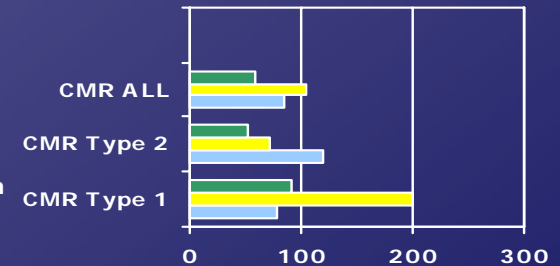
5 perinatal losses

20 babies alive at 28 days.

% of CA's by ethnicity



CMR vs ethnicity (per 1000 livebirths)



Conclusions and Recommendations

1. Type 2 diabetes – WM has a significantly higher prevalence of type 2 diabetes in pregnancy mainly occurring in Asian minority groups.
2. The major CMR in the West Midlands is twice that of the national UK figures in pre-gestational diabetic women and four times that of the general population in UK
3. The majority of malformations (53%) were cardiac or CNS abnormalities.
4. Efforts to reduce the CMR are centred around optimization of pre-pregnancy and 1st Trimester glycaemic control and usage of folic acid.