Management of Pre-Existing Diabetes in Pregnancy at West Middlesex University Hospital

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Introduction

It is well-known that diabetes in pregnancy carries serious maternal and fetal risks, and associated healthcare burden. The number of pregnancies in the UK complicated by pre-existing diabetes continues to rise.

The audit involved contemporaneous and retrospective data collection of all pregnancies with pre-existing diabetes, Type 1 or 2, booked at WMUH with an EDD between January 1st 2020 and May 31st 2021, inclusive.

Aims

- ✓ To audit the care provided at WMUH against national standards - NICE Guideline NG3 *(published 25th February 2015, last updated 16th December 2020)*
- ✓ Identify potential areas for improvement
- ✓ Implement change to improve quality of care

Method

- ❑ Cases were identified from referral to the diabetes team following the midwife booking appointment
- ❑ Data was collected by reviewing booking notes; patients' electronic notes and investigations; and neonatal notes
- ❑ The data was input into a spreadsheet and analysed using Excel
- ❑ January 2022 the audit presented at monthly Maternity Forum meeting

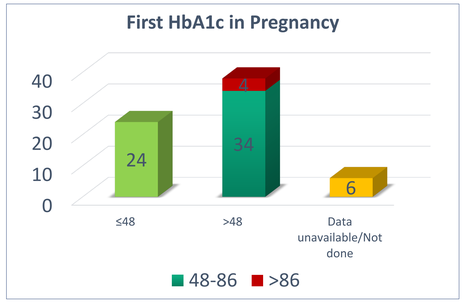
Conclusion

It is glaringly apparent that there is significant room for improvement in pre-conception counselling (PCC). It is essential to improve patient education and empower women. The majority of PCC is delivered in the community – we are currently looking into setting up educational workshops for GPs and considering how to make pre-conception services more accessible.

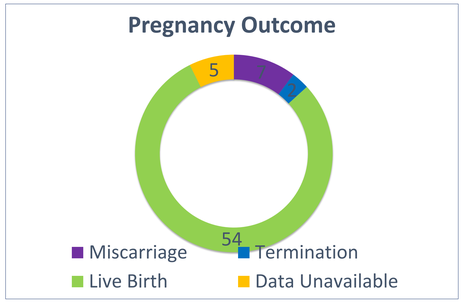
Results

- 68 pregnancies with pre-existing diabetes were booked during this period: 78% (53) with type 2, and 22% (15) with type 1 diabetes

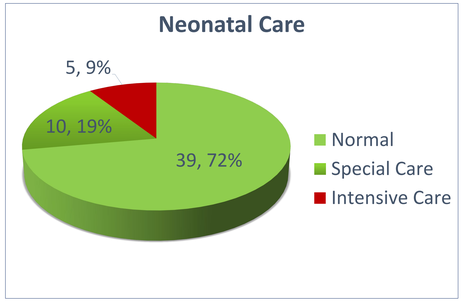
- NICE guidelines recommend:
- Women with diabetes planning pregnancy to keep HbA1c < 48mmol/mol; and strongly advises those with a HbA1c > 86mmol/mol not to get pregnant until their HbA1c level is lower, due to the associated risk
- BMI < 27 at booking
- Women who are planning a pregnancy to take 5mg folic acid/day until 12 weeks of gestation to reduce the risk of neural tube defects



Of the 62 women with available data, 61% had a booking HbA1c >48; of whom 12% (4) had a HbA1c >86

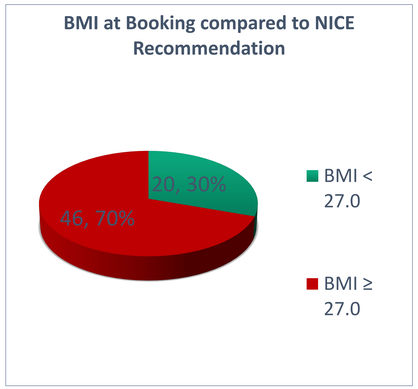


2 women had terminations – one at 14 weeks for holoprosepcephaly (booking HbA1c = 135); the other at 22 weeks for heterotaxy syndrome (booking HbA1c = 86).

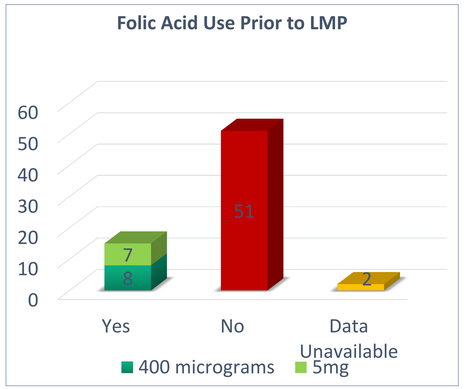


5 babies (9% of all live births) were admitted to Intensive Care - two were born at a gestation < 34 weeks (33+6 and 31+5); one baby was born at 36+0; and the other two at 37+6 and 38+0
All babies were alive at 28 days.

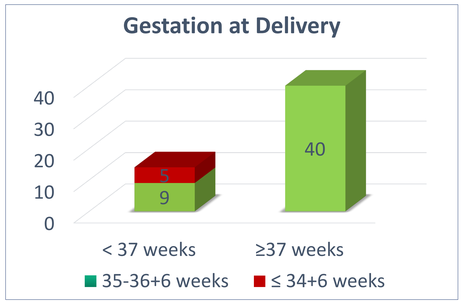
The baby born at 31+5 weeks was the only one to have congenital malformations – booking BMI 34, smoker during pregnancy, booking HbA1c 84 and no pre-conception folic acid use.



70% had a BMI ≥ 27



Of the 66 women with available data, 77% did not take folic acid pre-conception; only 11% took the recommended 5mg daily dose



Of the 54 live births, 26% (14) had a preterm delivery (< 37 weeks), of which 36% (5) were delivered at ≤ 34+6 weeks