

INTRODUCING THE NATIONAL PREGNANCY IN DIABETES AUDIT

Diabetes confers extra risks on both mother and child in pregnancy, but these may be reduced by good management. The National Pregnancy in Diabetes Audit promises to help achieve the needed improvements in clinical care and outcomes for women with diabetes and their infants



The Confidential Enquiry into Maternal and Child Health (CEMACH), published in 2006, revealed that women with diabetes in the UK ran a three to fivefold increased risk of major congenital anomaly, preterm delivery, stillbirth and neonatal death compared with women in the general population. However, there is evidence that the excess morbidity and mortality among infants of mothers with diabetes can be reduced. For instance, UK research has shown that there is a 30–50 per cent decreased risk of congenital anomaly and

perinatal mortality for each 11 mmol/mol (1 per cent) decrease in periconceptional HbA1c levels. The CEMACH findings were the basis of the 2008 National Institute for Health and Care Excellence (NICE) clinical guideline, which recommended improvements in diabetes pregnancy care and tighter glycaemic targets before pregnancy. Following the introduction of the NICE guidelines, the National Pregnancy in Diabetes (NPID) Audit was set up as a tool for driving clinical improvement. In a commentary published in a recent issue

of *Diabetic Medicine*, the NPID Audit Steering Group discusses how they have approached the audit work, and how they hope their findings will support healthcare professionals in caring for women with diabetes before, and during, pregnancy. **The NPID Audit – beginnings** The role of clinical audit has become more important in recent years, doubtless driven by the uncovering of the Bristol child heart surgery scandal in the 1990s. The Bristol inquiry led to agreed national standards and a new level of data transparency. There has

also been a clear shift in attitude towards audit among healthcare professionals, where audit is now seen as essential to best practice. Meanwhile, a decade on from gathering the CEMACH data, and despite agreed national standards for diabetes pregnancy care, there has not been a nationwide approach to measuring maternal and fetal outcomes. Specific challenges include:

- the dispersal of preconception, antenatal and prenatal care
- the relatively small number of pregnancies (median 25 deliveries annually per trust)
- even smaller numbers with serious adverse pregnancy outcomes.

However, there have been regional audits of pregnancy in diabetes for the North East, North West and East Anglia, suggesting that measurement is possible. They also show that a collaborative approach to measuring, publishing and acting upon pregnancy outcome data can lead to better care provision and clinical outcomes. The limitation is that these regional audits do not include all maternity units in every region and data are not collected in a standardised way. Dr Rowan Hillson, MBE, who was then National Clinical Director for Diabetes, first highlighted the lack of a national diabetes pregnancy audit as a major barrier to the improvement of pregnancy outcomes. Widespread support for the NPID Audit initiative followed, from patients and healthcare professionals alike.

Pilot NPID Audit studies The key clinical issues addressed by the NPID Audit are listed in Table 1. A pilot study showed that a data set of 46 items would provide the information needed on these measures. Anonymised, retrospective data from 1,381 pregnancies was used for initial testing. This was drawn from 30 maternity units that were already participating in the North East, North West and East Anglia regional audits.

A second proof of concept study was then carried out to test the feasibility of audit data collection among maternity units with no previous experience of auditing. This involved recording prospective data for 527 pregnancies from 13 maternity units over a period of one year. Logistical challenges, poor IT infrastructure and limited resources hampered the enthusiasm of healthcare professionals involved in the process. Nevertheless, much was learnt about barriers to data collection in routine care. Reducing the burden and complexity of data collection then became a priority for the NPID Audit.

Table 1 Key clinical issues addressed by the National Pregnancy in Diabetes Audit

1 Were women with diabetes adequately prepared for pregnancy?

- Taking folic acid at conception?
- Taking potentially teratogenic drugs at conception?
- Achieving optimal blood glucose control at conception?

2 Were appropriate steps taken during pregnancy to minimise adverse outcomes?

- Were target HbA1c levels achieved?
- Was retinal screening carried out?
- Were other maternal risk factors identified?

3 Were adverse outcomes minimised during pregnancy?

- deterioration of maternal retinopathy
- acute maternal admission
- termination
- miscarriage
- stillbirth
- live birth
- birthweight
- congenital anomaly
- perinatal death
- admission for neonatal care.

The NPID Audit in action The NPID Audit sits within the National Diabetes Audit (NDA) portfolio, which is commissioned by the Health Quality Improvement Programme and delivered by the Health and Social Care Information Centre, in collaboration with Diabetes UK.

Much of the data entering the NPID Audit already exists in other systems, such as the core NDA, Hospital Episodes Statistics data and the National Maternity Data Set. Therefore, the redesigned NPID Audit links to these data sets and this limits the need for local recording to only 20 of the 46 items. The NPID Audit Steering Group also works closely with the National Diabetes Pregnancy Network Group to promote engagement, share best practice and set local/regional improvement priorities.

The audit was launched on 10 March 2013, with the expectation that all trusts providing antenatal care to women with diabetes will participate. The Department of Health's Information strategy commits to publication of the outcomes of the NPID Audit, ensuring that diabetes pregnancy outcome data will be accessible to both patients and the public. The 2013 data is to be published in August 2014. For the first time, individual NHS trusts in England and Wales will participate in routine collection



The NPID Audit has the potential to help improve pregnancy outcomes among women with diabetes

of data which will provide key performance data benchmarked to national standards. This will allow healthcare professionals to learn from one another how to improve outcomes for women with diabetes and their infants.

Looking forward Ten years after CEMACH, nationally agreed NICE standards now exist as does a means of measuring performance against these benchmarks. With emerging clinical networks, which share pregnancy outcome data, the scene is now set to make a real positive impact in pregnancy outcomes for women with diabetes. Within the new NHS, networks touching on the care of women with diabetes in, and before, pregnancy need to be further developed and supported if the real potential of the NPID Audit is to be realised.

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For more information about the audit, including information on how to participate, go to www.hscic.gov.uk/npid or email NPID@hscic.gov.uk

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