

# Keeping abreast of the latest diabetes research: Thyroid function, insulin and gestational diabetes

Too busy to keep up to date with the latest research? In this new series, Erwin Castro, a Diabetes Specialist Nurse in Hastings, selects the latest papers of interest to diabetes nurses.

## Thyroid function in diabetes

Brooks AP et al (2015) *Practical Diabetes* 32: 129–33

This cross-sectional analysis of 655 people with type 1 diabetes showed that clinical hypothyroidism was the most common form of thyroid dysfunction (22% of females and 7.6% of males). Only two females and two males had hyperthyroidism.

The prevalence of clinical hypothyroidism in women increased after 10 years' duration of type 1 diabetes. For women with a diabetes duration between 10 and 29.9 years, the prevalence was 1 in 10. This increased to 1 in 3 after 30 years' duration.

This study suggests that people with newly diagnosed type 1 diabetes should have their thyroid function assessed clinically every six months for the first three years and on suspicion at any time thereafter. Hypothyroidism should be screened for in all people with a diabetes duration over ten years.

## Injecting insulin in public

Mehmet S et al (2015) *Practical Diabetes* 32: 59–63

How often do people attending your clinic express concern about injecting or checking blood glucose in public? The aim of this study was to determine if people with insulin-treated diabetes report problems with injecting insulin and self-monitoring of blood glucose in front of others.

A questionnaire was completed by 76 people. Of these, 49 people (25 male and 24 female) reported problems with performing these tasks in front of others. Just over a third of respondents "almost never" felt uncomfortable injecting insulin or testing

blood glucose in a public place. A total of 50% of respondents "almost never" inject insulin in front of work colleagues. Most respondents felt comfortable injecting and monitoring in front of their partners, children and family.

The most common reason cited for feeling uncomfortable was "worried about upsetting or offending others". The authors have suggested that a public awareness campaign may help overcome some of these barriers. It certainly would not harm for us to openly discuss these issues in our consultations.

## Insulin-requiring type 2 diabetes

Lin SD et al (2015) *Primary Care Diabetes* 9: 135–41

The study was a retrospective, multi-centre, observational study carried out in outpatients with type 2 diabetes taking oral anti-diabetes drugs and with HbA<sub>1c</sub> levels above 53 mmol/mol (7%).

This study aimed to identify factors that predict success with insulin therapy in people with insulin-requiring type 2 diabetes.

These people were begun on basal insulin between January 2005 and December 2006. A total of 565 people were studied and, by the end of the study, 11.2% ( $n=63$ ) had achieved the target glycaemic level (HbA<sub>1c</sub> <53 mmol/mol [7%]). Only 9.1% of people with HbA<sub>1c</sub> >73 mmol/mol (8.8%) and who were taking two or more oral anti-diabetes drugs at baseline achieved their glycaemic goal. The highest rate of successful glycaemic control was observed in those with HbA<sub>1c</sub> ≤73 mmol/mol (8.8%) and who had used two or fewer oral anti-diabetes drugs at baseline (32.7%).

The study concluded that the addition of basal insulin therapy only creates a

small chance of achieving glycaemic control in insulin-naïve individuals with HbA<sub>1c</sub> >73 mmol/mol (8.8%), especially those who are taking two or more oral anti-diabetes drugs at baseline.

## Gestational diabetes

Hawkins M et al (2015) *Diabetes Medicine* 32: 108–15

This study aimed to test the feasibility of a prenatal lifestyle intervention to reduce the risk factors of gestational diabetes in overweight and obese Hispanic women in a randomised trial.

The randomised trial studied the use of health educators in encouraging 33 women to increase physical activity, decrease saturated fat intake and increase dietary fibre intake over a 6-month period. Outcomes were compared to a control group of 35 women who received standard care.

Behavioural, physiological, socio-demographic and medical history measures were collected at baseline, mid-pregnancy and after delivery (6 weeks postpartum). Participation throughout the study was high and this was perhaps due to the gift card incentives that were delivered at each study assessment.

Vigorous activity increased in the lifestyle intervention group and decreased in the standard care group ( $P=0.004$ ). This may have contributed to the slightly lower gestational weight gain and infant birth weights compared with the standard care group: however, these differences were not statistically significant.

The motivational intervention was deemed feasible by the authors of the study, and could be translated into clinical practice, especially among minority populations. ■