Why is pre-diabetes important?

- At least a third of patients with pre-diabetes will develop type 2 diabetes within 6 years
- Pre-diabetes doubles the risk of cardiovascular disease. Getting type 2 diabetes triples the risk
- Intervening in the pre-diabetic state can strongly reduce these risks

Diagnosis

Pre-diabetes is an intermediate stage in the development of type 2 diabetes. It is also known as Impaired Glucose Regulation (IGR) and Non-Diabetic Hyperglycaemia. It consists of one or more of the following:

- **Increased Glycated Haemoglobin (IGH)** – HbA1c of 42 - 47 mmol/mol (6 - 6.4%) on two occasions
- **Impaired Fasting Glycaemia (IFG)** – Fasting plasma glucose (FPG) 6.1 - 6.9 mmol/l on two occasions
- **Impaired Glucose Tolerance (IGT)** – Oral glucose tolerance test (OGTT) 2 hours after a 75g glucose load 7.8 – 11.0 mmol/l

Who is at risk?

Risk factors are similar to those for type 2 diabetes:

- Age > 40 or > 25 for higher risk ethnic minorities (below)
- BMI > 30kgm² (or 27.5kgm² for people of South Asian or Chinese descent)
- First degree relative with type 2 diabetes
- At risk ethnic minorities, esp. patients of South Asian, Chinese, African-Caribbean or Black African descent
- Taking steroids, some anti-psychotic medications and anti-retrovirals
- Hypertension/Established CVD
- Physical inactivity
- Previous gestational diabetes
- Polycystic ovarian syndrome
- Abnormal lipid profile (↑TGs and/or ↓HDL)
- Mental health conditions or learning difficulties

Treatment

Intervening in the pre-diabetic state can delay or prevent the development of type 2 diabetes

NICE recommends that all patients with pre-diabetes should be offered intensive lifestyle intervention and advice about exercise and diet (see NICE guidance for recommendations on intervention content). Other cardiovascular risk factors should be assessed and addressed. We advise recording of:

- Smoking status
- Blood pressure
- Fasting lipids (including HDL)
- Weight and BMI
- QRISK2 CVD risk score – patients at increased risk of CVD

We have also developed an information sheet that can be downloaded and offered to patients at diagnosis

Treatment targets and effectiveness

- **Non-drug** → 6% weight loss after 3 years  Number Needed to Treat (to prevent 1 case) = 7
- **Drug** → Metformin (unlicensed indication) or orlistat (if BMI >=28) can be used if patients are unable to engage in or do not respond to lifestyle intervention

Monitoring

- Revisit treatment and offer a blood test at least once a year (preferably using the same type of test).
- Read code patients (IFG = C11y3; IGT = C11y2) to construct a pre-diabetes register for annual recall.
- There is no Read code for Increased Glycated Haemoglobin. However, you can use the generic Read code for pre-diabetes (C11y5).
- Regular follow-up and support for patients making lifestyle changes (including monitoring of weight /BMI).

See references overleaf
References:


* The WAKEUP® Pack contains information for patients and guidelines for health professionals. It was developed by University of Exeter Medical School, with support from Diabetes UK (grant number BDA:RD04/0002783).