

# Conference news: Key messages on weight loss and diabetes remission

In the second part of our coverage of this year's Diabetes UK Professional Conference, held in Liverpool from 26<sup>th</sup> to 28<sup>th</sup> April, we concentrate on the key weight loss and diabetes remission messages delivered by experts in the field.

## Banting Memorial Lecture Type 2 management: "weighing" up the options Naveed Sattar

Professor of Cardiovascular and Metabolic Health, University of Glasgow

- There are individual differences in a person's subcutaneous fat capacity. Once this is exceeded, fat is deposited around the internal organs (visceral or ectopic fat), and this can result in type 2 diabetes.
- Men tend to develop type 2 diabetes at a lower BMI than women, likely because of lower subcutaneous fat capacity and increased storage in other tissues, increasing insulin resistance.
  - ▶ They also tend to develop diabetes 15 years earlier than women.
- For similar reasons, Black, Asian and minority ethnic individuals also develop type 2 diabetes at lower BMI and earlier than those of white European ethnicity.
- However, white people who develop type 2 diabetes earlier tend to lose more years of life due to greater adiposity:
  - ▶ This is because adiposity is a major cause of heart failure, non-alcoholic steatohepatitis, end-stage renal disease, etc., even in people without type 2 diabetes.
- Therefore, weight loss should be considered its own goal, independent of its effects on HbA<sub>1c</sub> and, potentially, diabetes remission.
  - ▶ In addition to diabetes outcomes, patient-reported outcomes (e.g.

functional mobility, pain, body image and quality of life) are increasingly being used to confirm benefits of weight loss.

## Translating research into practice: The NHS Type 2 Diabetes Path to Remission programme Jonathan Valabhji

National Clinical Director for Diabetes and Obesity, NHS England

- As of December 2022, there have been 7554 referrals to the (newly renamed) *NHS Type 2 Diabetes Path to Remission* programme.
  - ▶ The highest referral rates have been in the most deprived areas, and there are higher rates among minority ethnic groups. This highlights the benefits of GP referral versus self-referral: underserved communities are being served.
- Of eligible referrals, 75% have attended for an initial assessment and 68% have started on the meal-replacement diet.
  - ▶ Uptake has been highest in the youngest age groups, which is encouraging as they have the greatest potential benefit.
  - ▶ However, uptake was lowest in the most deprived areas (direct inverse relationship between deprivation and uptake).
- Retention rates have been encouraging: 90% at 3 months (start of weight maintenance phase) and 55% at 1 year.
  - ▶ Retention rates were lowest in

younger ages and deprived areas, and were reduced in those with BMI  $\geq 45$  kg/m<sup>2</sup>. No differences by sex, ethnicity or diabetes duration.

- Weight change outcomes: -12.2% at 3 months; -12.0% at 6 months; -9.8% at 1 year.
- Weight loss findings, therefore, reflect those of the original DiRECT randomised controlled trial at 1 year.
- Remission data are yet to be published.

## 5-year follow-up weight, remission and clinical outcomes from the DiRECT intervention Mike Lean, Roy Taylor

Clinical Senior Research Fellow, University of Glasgow; Professor of Medicine and Metabolism, University of Newcastle

- In the original DiRECT study, 46% of participants in the intervention group achieved remission at 1 year, and 36% at 2 years.
- Thereafter, the study has been extended: 95 of the original intervention group (48 in remission at extension start) received continued weight maintenance support over years 3–5.
  - ▶ Reviewed every 3 months in primary care; those who regained >2 kg offered an additional package of support (available once per year), consisting of a 4-week meal-replacement diet plus food reintroduction support.
- Control group: 82 participants from original control group, who did not receive 3-monthly reviews or

supplemental support over the study extension period.

- Weight loss in the intervention group ( $n=85$  with outcomes data) was attenuated after 2 years but stabilised at a substantial 6.1 kg in year 5.
- Positive metabolic effects persisted in the study group: decreased triglycerides, decreased insulin levels, decreased liver fat.
- Interestingly, the control group also achieved weight loss of 4.6 kg over the same interval.
- At 5 years, in the intervention vs control groups:
  - Remission rates: 13% vs 5%.

- Off all diabetes medications: 40% vs 13% (greater weight loss correlated with decreases in  $HbA_{1c}$ ).

- Quality of life (EQ-5D score) almost 10% higher in intervention group (same as at 1 year).

- Of the 48 participants who were in remission at the start of the extension period, 11 (23%) were still in remission, with an average weight loss of 8.9 kg, at 5 years.

- 54% fewer serious adverse events in the intervention group:

- Sudden death, stroke and TIA all lower. However, there were more cardiovascular events in

the intervention group (possibly associated with discontinuation of statins, which is not advised).

- Gallstones, DKA and bacterial infections all lower.

- No new cases of weight-associated cancers in intervention group, versus eight in controls – further evaluation needed as numbers are small.

- Further research is needed to improve weight loss maintenance outcomes and optimise cost efficiency. ■

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