

The impact of using a joint Diabetes Specialist Nurse and Dietitian clinic for people with type 2 diabetes referred for insulin initiation.

Antoinette Goodwill

Diabetes Specialist Dietitian a.goodwill@nhs.net

Kerry Burns

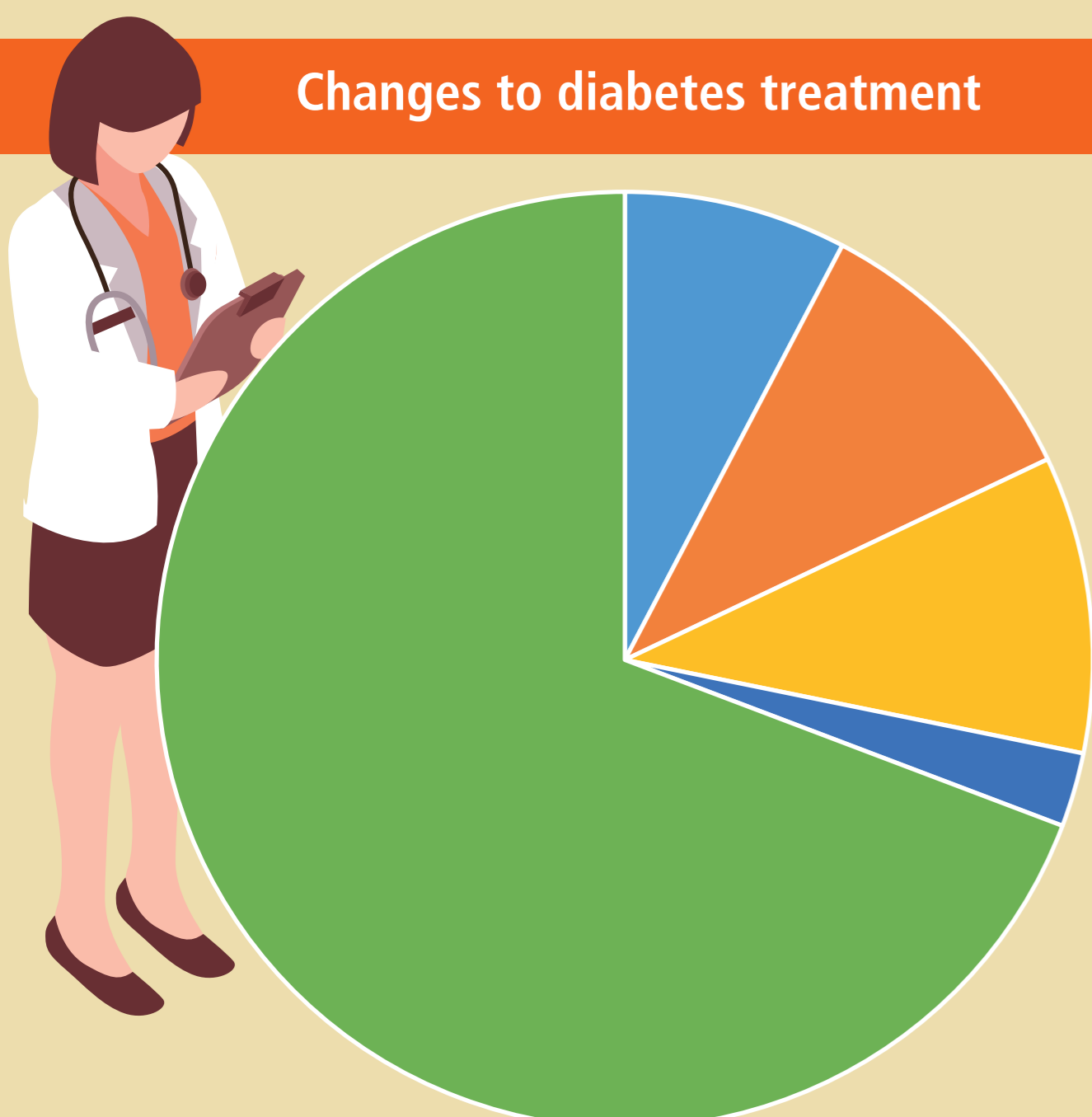
Diabetes Specialist Nurse kerry.burns@nhs.net

The Rotherham NHS Foundation Trust

Background

NICE suggest to adopt an individualised approach to diabetes care that is tailored to the needs and circumstances of adults with type 2 diabetes¹. It is well documented that there is resistance from people with type 2 diabetes to start on insulin². This might be due to insulin therapy being associated with adverse outcomes including weight gain, hypoglycaemia and reduced quality of life³. It is suggested to revisit lifestyle changes even with insulin initiation with type 2 diabetes². In our service, patients with type 2 diabetes who are referred to the Diabetes Specialist Nurses (DSN) for insulin initiation, often decline starting on insulin. If the patient agrees, they would also be referred to a dietitian. We have found that the process of waiting, plus an additional appointment often leads to non-attendance. This delays optimising blood glucose levels. Raised blood glucose levels can lead to both macrovascular and microvascular damage².

Changes to diabetes treatment



- Started on insulin at 1st clinic
- Started on insulin at 2nd clinic
- Started on GLP-1 at 1st clinic
- Started on SGLT-2 at 1st clinic
- Only made dietary changes

Aim

Improve the process of seeing people with type 2 diabetes who were referred for insulin initiation and thereby reducing raised HbA1c quicker.

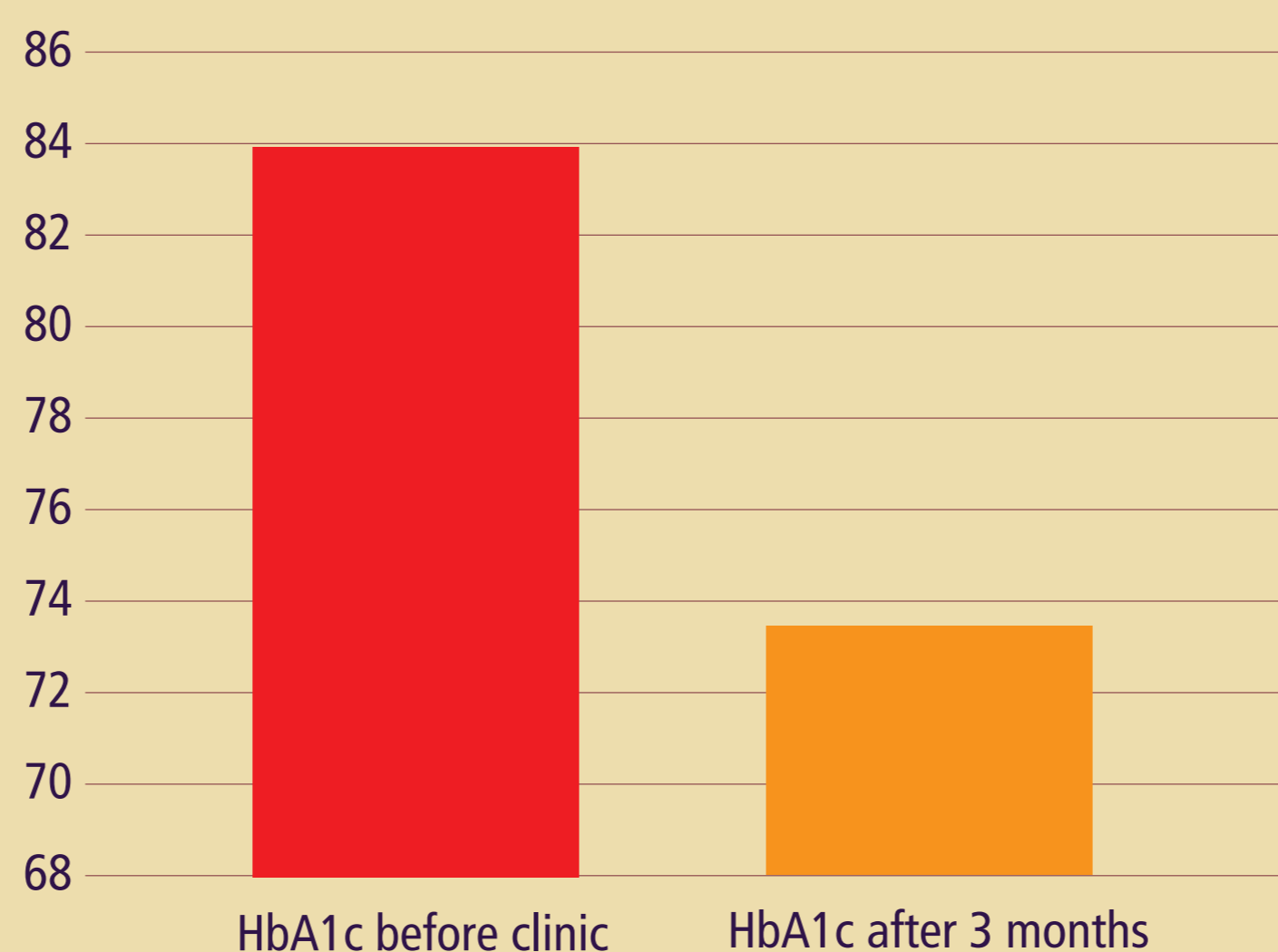
Method

A joint clinic by the DSN and dietitian was trialled, inviting people with type 2 diabetes who were referred for insulin initiation. In these clinics, diet and lifestyle changes were strongly encouraged. The patients would then be reviewed in 3 months. The effectiveness of the clinics was evaluated by reviewing HbA1c before seen and at their 3 month review.

Results

The majority of patients who attended dramatically reduced their HbA1c and did not require insulin initiation. Of the thirty five patients who attended, by their next appointment, seven patients were started on insulin and four patients had their diabetes medications reduced (gliclazide). Four patients were started on GLP-1 at their first appointment. Two of the patients who were started on GLP-1, HbA1c deteriorated at the follow up clinic. One patient was started on SGLT-2 and their HbA1c deteriorated at their follow up appointment. 84mmol/mol was the average HbA1c for the patients when seen at the first appointment. At the follow up clinics, on average a reduction in HbA1c of 10mmol/mol was seen ($P < 0.001$). The overall weight reduction was often minimal, with the maximum weight loss of 5kg. Other findings include that most patients have not accessed a dietitian over the last 7-8 years. Dietary changes, even if small, were far more powerful than medication in many of these cases. Having the nurse and the dietitian together added more emphasis to the lifestyle changes. When making lifestyle changes with a higher HbA1c, weight loss was a less accurate marker of adherence to the diet and lifestyle changes and improvement of HbA1c.

Changes in HbA1c before and after attending the joint clinic



References

1. National Institute for Health and Clinical Excellence. Type 2 diabetes in adults: management (NG28). NICE, London, 2015.
2. Berard, L and Yale, J. Insulin Matters: A Practical Approach to Basal Insulin Management in Type 2 diabetes. Diabetes Therapy, 2018 [Online] Available from: <<http://doi.org/10.2337/dci17-0041>> [Accessed 20 February 2020].7.
3. Snel M, and Sleddering MA. Quality of life in type 2 diabetes mellitus after a very low calorie diet and exercise. Eur J Intern Med 2012;23:143-9.

Conclusion

Diabetes is a complex condition requiring multidisciplinary team input. The importance of lifestyle changes to be optimised when insulin initiation is considered, is well recognised. We have found having a joint DSN/Dietitian clinic helped improve HbA1c measurements, whilst weight loss was not a true indicator of improvement of HbA1c.

Conflict of interest

No potential conflict of interest was reported by the authors.