

Insulin initiation in primary care

Sarah Paterson

ARTICLE POINTS

1 Insulin initiation is a natural progression in the care of patients with diabetes, and has traditionally been carried out in secondary care.

2 The 'Insulin for Life' programme aims to provide GPs and practice nurses with the skills to instigate and maintain patients on insulin in primary care and is sponsored by Aventis.

3 The programme comes with back-up and support from the acute team and DSNs after the lectures.

4 A small rural practice describes how the programme gave them the confidence to instigate insulin therapy in suitable patients and thereby improve their quality of life.

5 Enthusiasm and commitment from the diabetic lead is crucial to the success of the venture.

KEY WORDS

- Insulin initiation
- 'Insulin for Life' programme
- Patient-centred approach
- Role extension

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Introduction

The 'Insulin for Life' programme comprises a one-day series of lectures designed to empower GPs and practice nurses with the skills to intensively manage people with type 2 diabetes, including the initiation or conversion to insulin therapy. The programme aims to stimulate teams to consider extending their roles. The lectures are structured to encourage open discussion between up to 10 teams from the acute and primary sector. Attendance on a formal course or sound knowledge of diabetes care is a prerequisite. This article outlines the experiences and clinical outcomes of the scheme from the perspective of a small rural surgery.

Our small rural practice in Low Hesketh, Carlisle, has a list of 2300 patients, 80 of whom have diabetes. We have a strong and caring attitude to all these patients, and pride ourselves in the continuation of their care. They feel very relaxed at the surgery and have open telephone access should any problems arise.

Most of our patients who have to begin insulin would prefer it to be initiated in a primary care setting. They do not want to have to travel more than 10 miles to the hospital, possibly endure long waiting times and see a doctor or nurse whom they have never previously met. Before the 'Insulin for Life' programme was established, this was the only option.

A natural progression in diabetes care

The vision of extending the treatment of care to our patients with diabetes began 3 years ago when I completed the Certificate in Diabetes Care. We realised, as a team, that we were achieving excellent results with our patients, but were frustrated at not having the skills to initiate insulin on site – for us it seemed to be the natural progression in their treatment.

The need to start patients with type 2 diabetes on insulin had become a regular occurrence, and I was inspired by Mary MacKinnon (2002), who suggested that the

practice nurse should take the key role in the care of patients with diabetes. She has been instrumental in guiding primary care teams to achieve high quality patient care by expanding their roles.

There were significant reasons why our diabetes team needed the 'Insulin for Life' programme. We had an excellent relationship with the acute sector: there were no barriers of ego, control or lack of trust either way. Members of the acute sector diabetes team, who ran the course, viewed this as an opportunity to allow us to extend our skills. This, in turn, would enable them to spend more time and effort on more complex patients. The overriding goal was for patients to have more choice to care for their own disease.

Aims of the 'Insulin for Life' programme

The course was open to both GPs and nurses with an interest in diabetes. The sessions aimed to remove the stigma of insulin initiation, to build confidence, and to make us feel that we were more than capable of extending our roles. Discussion of individual cases and detailed explanations of when and why patients should start insulin achieved this.

It soon became clear to me that we were undertreating a small number of patients, who would benefit from initiation of insulin. Specifically, these were patients with an

HbA_{1c} of ≥ 8 who were not responding favourably to maximum oral therapy. The argument for a much more aggressive treatment plan with these patients became clear.

We know from the UK Prospective Diabetes Study (UKPDS, 1998) that people with diabetes require intensive treatment of their hyperglycaemia. Slama (2003) suggested a change in the management of care for patients with type 2 diabetes, i.e. early prevention using all resources rather than delayed management.

The idea of the 'Insulin for Life' programme is not for us all to rush back to our surgeries to start all of our patients with diabetes on insulin, but to go away, discuss and consider carefully which of our patients with diabetes would benefit from initiation of insulin treatment.

Practitioners working in diabetes care have understandable concerns about instigating insulin in primary care, as making mistakes when dealing with insulin can have serious consequences. A number of practitioners on the course felt this way. However, their fears were openly discussed by the acute care workers, who were able to allay them by explaining specific indications for starting insulin regimens including glargine (Lantus), e.g. a rising HbA_{1c} or regular night-time hypoglycaemic attacks on other long-acting insulins. The list of potential patients we were undertreating was beginning to grow.

Patient-centred approach

We gained the skills and confidence not only to identify patients who would benefit from insulin therapy, but also to take them through the emotional and physical development needed to achieve a positive outcome. Health professionals in primary care are best placed to do this, as they have a close and trusting relationship with patients – one that has been nurtured over many years.

Patients feel more relaxed in a familiar environment. In this setting, taking them through the emotional and physical development seems a natural progression of their treatment. We have the time available to allow them to express their concerns, to discuss options of treatment

with them and their family, and to allow them time and space to come to terms with the full implications and reasons for wanting them to initiate insulin treatment. This patient-centred approach is fundamental to their understanding and compliance.

Invaluable support

The support to make these decisions and carry them out was readily available. DSNs from the acute sector were willing to discuss patients either on the day of the course, or later over the telephone. In addition, DSNs from Ashfield were willing to come to the surgery, whenever necessary, to give constructive and objective advice about any areas of diabetes care. For me, this was an invaluable service.

Putting the theory into practice

Over the next 3 months we began to initiate patients onto insulin therapy. The insulin selected was insulin glargine, in line with local guidelines. Patients were always given the choice as to where they wished to be treated. Some patients were very keen to start, whereas others had to overcome fears and a process of acceptance and understanding was required.

It was important that patients fully understood how to monitor their own blood sugar, and time was spent in the surgery making sure they could do this. After this groundwork had been completed,

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3 From the course, we gained the skills and confidence to identify patients who would benefit from insulin therapy, and to take them through the emotional and physical development needed for a positive outcome.

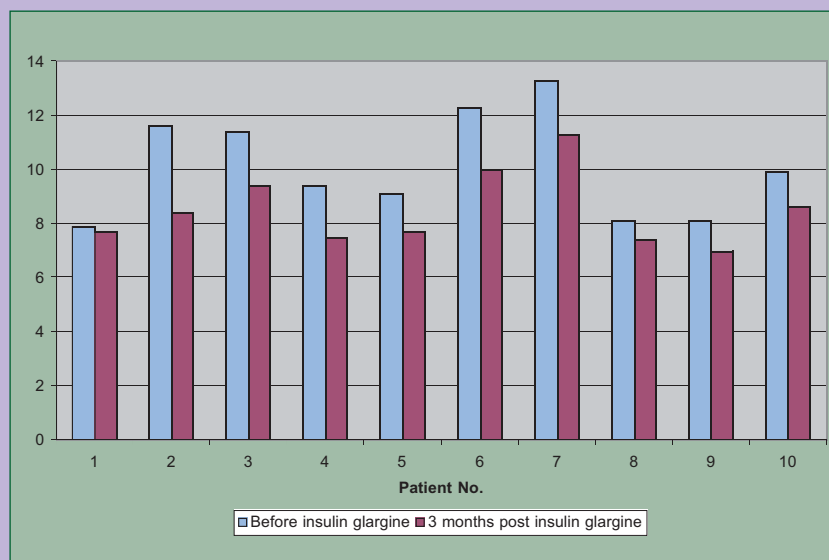


Figure 1. HbA_{1c} levels before and 3 months after insulin initiation.

Case history

Patient 6 has had diabetes for 15 years. He is on maximum oral therapy and had been on a long-acting evening insulin for 2 years. The amount of insulin was prohibitive as the dose needed to reduce his HbA_{1c} to acceptable levels gave him regular night-time hypos. His BMI was 35, and blood pressure was stable at 135/80 mmHg.

This patient was open to change, so we instigated insulin glargine together with a programme of exercise on prescription. Within 2 weeks, he reported that he no longer spent most of the evening asleep in his chair. For the first time in more than 3 years he felt his quality of life improving. He took up bowling again, met new friends at the exercise classes, and his partner was thrilled that she had got back her husband. He was seen twice a week at the surgery for 3 weeks until his fasting blood sugars were in the acceptable range. Our appointments continued over the phone on a weekly basis.

His first HbA_{1c} after 3 months showed a 2.2% reduction. He was thrilled with his newfound understanding of the disease process, and that inspired him to maintain compliance. His weight had not changed, but there was a small reduction in his blood pressure and no instances of night-time hypoglycaemic attacks.

initiation or conversion to insulin glargine added to previous oral agents was simple. Patients were seen every 3–4 days and the level of insulin glargine was titrated against their fasting blood sugar.

Increasing the insulin dose by up to 8 units at a time was something that I found particularly difficult psychologically. However, with the guidance of the Ashfield nurses, this difficulty was quickly overcome. The time involved in initiation of insulin glargine was considerable.

Clinical outcomes

The rise or fall in a patient's HbA_{1c} should not be the only measure of success – how the patient actually feels also has to be taken into account. Our first 10 patients had their 3-monthly HbA_{1c} recorded (Figure 1), and all had achieved a reduction. The highest reduction was 3.2%, which, in terms of potential reduction in micro- and macrovascular complications, is enormous. It is interesting that the higher the HbA_{1c} before insulin glargine initiation, the greater the reduction.

These 10 patients were selected for insulin initiation because their diabetes was proving difficult to control, and their HbA_{1c} levels were far too high. Their risk of major cardiovascular complications was huge.

The St Vincent Declaration in 1989 charges health professionals with the task of finding effective measures to cut morbidity and mortality from coronary heart disease by risk factor reduction (WHO [Europe] and IDF [Europe], 1990). As a result of introducing insulin glargine we now have only one patient with an HbA_{1c} above 10%. Interestingly, the patient with the lowest HbA_{1c} before commencing insulin glargine had the smallest reduction.

Reasons for our success

I feel that our success with these patients cannot be attributed solely to the initiation of insulin: several factors have combined to produce such good results. Patient information, knowledge and understanding

are paramount for success. In some cases, it has taken many sessions for patients and family members to overcome the stigma of 'the needle'. This time is available in primary care. Time is essential in such situations, or compliance with the new treatment may well be a restrictive factor. Enthusiasm on the part of the practice nurse is crucial.

We encourage our patients to be fully involved in the initiation of insulin. Home monitoring, storage and correct use of pens and insulin, and knowledge of what to do in the event of a hypoglycaemic attack are skills needed by patients. A nurse with a positive approach, who can encourage and guide the patient and family, is vital. There is no doubt that helping patients to acquire these skills can take a lot of time initially. However, once patients' fasting blood sugars were within acceptable levels, their visits became less frequent and 3 months after initiation or conversion to insulin glargine, all patients returned to their usual 3–6 monthly reviews.

Long-term effects on patients

The case history (left) holds true for all our patients so far treated with insulin glargine.

The future for these patients is better than 3 months ago. Our patients feel very special that we can now offer them this service in addition to their usual diabetes care. These are early days in the story of diabetes care in the community, but I do think that the more strings we have to our bow the better it must be for the patient.

The future for these patients, and those who will need to commence insulin glargine in the future, looks brighter. We are confident in our newfound skills. From the results we have achieved so far, we feel that as a team in primary care we can offer patients a positive choice in the development of their treatment, and in doing so can make a significant difference to their quality of life. ■

The diabetes team at Low Hesket, Carlisle, comprises Sarah Paterson, Practice Nurse, Dr Ken Sutton, GP, Christine Pritchard, Dietitian, and Mrs Nicola Brookes, Practice Manager.

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