Insulin initiation: A primary care perspective

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Article points

1. The number of people with type 2 diabetes needing insulin therapy has incresead pressure on secondary care.
2. More insulin initiation is now done in primary care to ease this pressure.
3. With the increasing numbers of people requiring insulin, skills in insulin initiation are becoming important.
4. There needs to be good communication between primary and secondary care, allowing for support, advice and an effective referral pathway.

Key words

- Insulin initiation
- Primary care
- Support

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Historically, any person with diabetes requiring insulin would be referred to secondary care for insulin initiation and subsequent management. However, with the ever increasing number of people being diagnosed with diabetes and the drivers to improve glycaemic control, more people are being initiated onto insulin and secondary care no longer has the capacity to provide routine care for this population. Insulin initiation is increasingly being carried out in primary care, and this article looks at how the situation has developed.

Over the last few years, primary care has seen many changes both to how it delivers care and how it is funded. The new General Medical Services contract (BMA, 2003) includes a Quality and Outcomes Framework, which has diabetes as one of the clinical indicators, with 28 out of the 93 points for diabetes being awarded for tighter glycaemic control. Seventeen points are awarded for recording individuals with an HbA_{1c} ≤7.5% and 11 points for recording those with an HbA_{1c} ≤10%. This means that delaying insulin initiation for people on maximally tolerated oral therapy with poor glycaemic control should not be an option. This has had an impact on the workload for primary care practitioners, the majority of the work being absorbed by the practice nurses. The delivery of care has changed as GPs have had to recognise the need for earlier medical interventions, a different view of medication and introducing insulin therapy earlier.

Practice-based commissioning, while not in place in the author's area yet, needs to be recognised as the way forward as community-based services are increasing. In order to ensure that all the needs of people with diabetes are addressed and the skills required to deliver that care effectively are in place, practice nurses need to be aware of what services are available in their area and how to coordinate care using diabetes networks. However, this will impose a pressure on nurses not already upskilled to develop new skills in order to deliver an effective diabetes programme.

History of diabetes clinics

Diabetes clinics have been running in primary care for many years so the structure for delivering chronic disease management is in place and usually runs very effectively (Procter-King and Roberts, 2007). In recent years, it has been recognised that practice nurses have the skills to coordinate and run these clinics (Procter-King and Roberts, 2007). Therefore, it is usually the practice nurse that people with diabetes see when they attend the surgery, and it is the practice nurse who carries out the annual reviews, education about lifestyle and, depending on local protocols, initiation and changing of medication. Upskilled practice nurses have therefore developed a wide range

of skills to meet the needs of their diabetes population, and have demonstrated that they can deliver highly effective diabetes care (Kirby, 2005).

According to the White Paper: *Our health, our care, our say: a new direction for community services*, people with diabetes should have access to care close to home and services should be designed around the individual (DoH, 2006). Primary care can offer a service which is easily accessible, thus reducing travelling times and costs, and the clinic appointment will often be at a more convenient time for them.

People usually feel more comfortable attending the surgery rather than the hospital clinic as they have often been attending for many years and have built up a relationship with their GP and nurse. When attending the primary-care based diabetes clinic, the individual will frequently see the same healthcare professional, facilitating continuity of care and enabling a relationship to be built. This means that the healthcare professional will not only have up to date records but will also have an insight into external factors affecting the lifestyle of the person with diabetes such as work, home, housing and family issues.

The practice nurse

The practice nurse is in a position to offer a range of services to support other aspects of the patient's health. For example, when travelling abroad, the individual can be given advice which is not just specific to their diabetes but also which vaccinations are required for their trip and extensive travel health advice backed up with written information. General wellbeing including family planning, smoking and obesity can all be discussed and followed up within the primary care setting.

Insulin initiation seems to be a natural progression of care when a nurse has supported an individual from diagnosis through lifestyle changes, increasing medication, continuing education, annual reviews and planning care. However, initiating insulin often raises anxieties due to lack of knowledge in what appears to be a complex area to tackle. Although courses are available for practice nurses wishing to acquire insulin initiation skills, many professionals have difficulty in getting the time and funding to attend them.

Local approach to diabetes care

The author's practice has 10 044 people on the register, of whom 422 have diabetes (types 1 and 2). It is a rural population within a holiday location and covers two sites 13 miles apart. There is a cottage hospital within 7 miles and the nearest district hospital is approximately 14 miles away. Within the surgery, we have a GP with a special interest in diabetes, three nurses who have completed an accredited certificate in diabetes care course and two of these nurses have also completed an insulin initiation course. None of the nurses are prescribers, which can sometimes delay the starting of therapy. While the GPs are happy for the nurses to decide on the medication route, following a protocol, the prescription still needs signing by the GP.

Within the author's locality, a course was run for primary care health professionals to enable them to become competent at insulin initiation (Pan-Peninsula insulin initiation course). It was recommended that both a practice nurse and a GP from interested surgeries attend. It ran over one and a half days and was delivered by the secondary care diabetes team, primarily the local DSNs with input from the local diabetologist. The course provided knowledge relating to patient assessment, the challenges of insulin initiation, types of insulin, regimen and pen devices, and the education and support required by the patient. There was one month for reflection between the study days, and time on the course to discuss case histories and specific concerns or queries. See *Box 1* for the author's experience of the course.

The approach to diabetes care in the author's practice is one of nurse-led clinics with support from GPs for initiation and adjustment of medication and specific problem solving. The nurse works with individuals to help build up their knowledge base and self-management skills to enable them to take control and

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manage their own diabetes, as recommended in Standard 3 of the NSF for diabetes (DoH, 2001).

From diagnosis, individuals are informed that diabetes is a serious condition which is progressive, and the possibility of requiring insulin therapy as part of their treatment in the future. It is reinforced that this is not to be seen as failure to control their own diabetes, but another option in managing glycaemia. During clinic visits (every 4 months) the nurse also reviews blood pressure, cholesterol levels, renal and liver function and provides education regarding eye and foot care. Blood is taken a few days before the appointment so as to be able to provide up to date results for discussion. Any changes in their diabetes will be identified and dealt with either with medication or with appropriate referral. When the person with diabetes is no longer maintaining good glycaemic control on maximally tolerated oral medication and insulin therapy is being considered, it should not be too much of a shock as insulin therapy will have been discussed previously.

Box 1. The author's experience of an insulin initiation course.

Prior to the course, I felt overwhelmed by the complexities of insulin therapy, with the choice of types of insulin and regimens and different devices. I was also concerned about how I was going to find the time to carry out insulin initiation in what were already very busy clinics.

Following the course, it was important to identify a couple of patients to put the knowledge into practice before losing confidence or forgetting newly developed skills. Unfortunately, there are no community DSNs in our area, and as the DSNs are stretched within the hospital, it wasn't easy to get support within the practice. This led to me having a very anxious and cautious approach with the first few patients. It was also very time consuming as I was worried about forgetting any issues which needed to be discussed with the patient, and in titrating the insulin doses correctly without causing hypos. It wasn't easy to access support and advice and I was fortunate that our surgery allowed pharmaceutical company support in the form of a specialist nurse who attends the practice once a month.

Box 2. Content and objectives of pre-insulin education for people with diabetes

- The individual understands the reason for insulin initiation.
- Discuss any fears and anxieties.
- Review competency in self-monitoring of blood glucose (SMBG).
- The individual understands the symptoms, causes and treatments of hyper- and hypoglycaemia.
- Review lifestyle and employment issues, driving and informing driving insurance and DVLA, the effect of recreational activities on glycaemic control.

To improve the way insulin initiation was carried out in the author's practice, a structured education programme was developed which optimises the benefits for people with diabetes with the emphasis being on empowerment. Currently, people requiring insulin are seen individually and a structured education programme is used, often involving two or three visits before insulin therapy is commenced (see *Box 2*). Following a recommendation from the insulin initiation course, professionals in the practice also became familiar with a number of insulins and their profiles, so they feel confident in what they are doing (see *Box 3*).

All education is backed up with written information and the support packs for insulins and meters provided by pharmaceutical companies have been very useful. As length of appointment time is a constraint within clinics, once started on insulin individuals are seen weekly until they are comfortable with their regimen (usually around 6 weeks but it has taken up to 7 months). During this time, further education is provided (see *Box 4*). Individuals are then followed up every 3 days with telephone calls until their fasting blood glucose target is achieved. They are then put on a 4-month recall but have the reassurance of being able to contact a practice nurse daily, with an out of hours number for weekends.

Most people are started on combination therapy with metformin using either a once-daily long acting insulin analogue or a twice-daily mixture. The author feels it is essential to try and keep the process and prescription simple both for the person with diabetes, as they will often be on many medications. As the professionals in the author's practice have seen more and more people with insulin treated diabetes, they have gained more confidence in using more complex insulin regimens. Individuals with type 1 diabetes are also looked after within the practice so the nurses have become familiar and confident with a variety of insulin regimens.

As the number of individuals diagnosed with diabetes increases, and insulin therapy becomes

more commonplace, there will inevitably be an impact on practices, not only in terms of time constraints but also in terms of space and staff availability. These issues could be addressed by considering initiating people onto insulin by using group sessions. However, this means finding time for staff to attend courses to learn the skills required to lead effective group work.

While the skills and knowledge of primary care in managing many aspects of diabetes care have increased, there is still a need for the support of secondary care. All young people (from 0–24 years of age), pregnant women with diabetes or gestational diabetes and people with complex needs, such as foot and renal complications, are referred to secondary care colleagues in the author's locality.

One area of support within the area has come from an insulin initiation support group in primary care. This has been set up by practice nurses who are carrying out insulin initiation and often feel as though they are working in isolation. The group meets quarterly and it provides a forum where case histories of individuals with more complex needs can be discussed, and common areas of practice around insulin care, such as sharing protocols and other best practice. Recently, as renal complications and depression have been added to the QOF (BMA, 2006), these have been topics of discussion. This has become a valuable source of support for the practice nurses in this area.

Discussion

People with diabetes can benefit from insulin initiation in primary care as they have usually attended for a while and feel comfortable with the practice nurse. The person with diabetes also does not have the increased cost of travelling to a hospital, as the practice is usually closer. With the increasing numbers of people with diabetes requiring insulin, skills in insulin initiation are becoming important in primary care to provide total continuous care for people with diabetes, and to support them in achieving good glycaemic control. To do this, primary care staff need to access courses to acquire the appropriate skills, and manage their time in order to absorb the increased workload.

In order to carry out this work effectively and with confidence, there needs to be seamless communication between primary and secondary care, allowing for support, advice and an effective referral pathway. ■

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Box 3. The information that healthcare professionals should become familiar with in order to be able to initiate insulin successfully.

- Type of insulin required.
- Action of that insulin.
- Storage of insulin.
- Type of device and needle length, discussed and chosen by the individual.
- Care of the device
- Appropriate injection sites, rotation of injection sites.
- Sharp disposal.
- Dose adjustment.

Box 4. Continuing education for people with diabetes who are initiated onto insulin.

- Supporting on-going insulin dose adjustment.
- Preventing lipohypertrophy.
- Effects of alcohol.
- Eye care.
- Foot care.
- Smoking.
- How to avoid, identify and treat hypoglycaemia.
- Sick day rules.