Providing diabetes care and support to students in higher education

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Students with diabetes face many challenges when starting university. Many continue to attend a secondary care clinic in their home town, where they are known to the team, rather than being referred to a hospital clinic near the university. This can present unique challenges for a university medical practice, which is expected to provide care to a large number of young people with diabetes, most of whom have type 1 diabetes. This article describes a diabetes website, clinic and group education sessions for students with diabetes attending the Leeds Student Medical Practice. The aim was to improve and coordinate diabetes care for the students by working with their current diabetes care providers.

Article points

1. Students with diabetes present unique challenges for a university medical practice.
2. A diabetes register and clinic set up at the Leeds Student Medical Practice in 2005 provides a service based on individual need, with direct access to a DSN, podiatrist and dietitian.
3. The clinic and website have improved the care of most students with diabetes registered with the practice to some degree.

Key words

- Diabetes care
- University student
- Diabetes website
- Group education

Providing support and care to university students with diabetes can be challenging. Arrival at university is a time of 'firsts' for all students: it is often the first time they have lived away from home, and the first time they have fully managed their own diet and nutrition, as well as their own finances and time. All of these add to the number of decisions that students with diabetes need to make in order to manage their diabetes successfully, which they may be doing for themselves, for the first time.

The Leeds Student Medical Practice

The Leeds Student Medical Practice is an inner-city GP practice serving particularly, but not exclusively, the needs of students attending the colleges and universities in the Leeds area. There are approximately 35 500 people on the practice list; their ages range from 0 to 70 years, although the majority are under 30. Ninety-four different nationalities are represented on the list. Within the practice population, 83 have type 1 diabetes and 12 have type 2 diabetes.

In April 2005 it was agreed that a diabetes register and diabetes clinic would be set up at the practice. In addition it was recognised that there was a need to provide information on diabetes on the practice website as a resource that all students with diabetes could access (www.leedsstudentmedicalpractice.

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Page points

1. A diabetes support team was formed and consisted of a practice nurse, a GP, a healthcare assistant and a receptionist who provided administrative support.
2. A DSN and dietitian provided direct support by running clinics and group education sessions and helping to develop the skills and knowledge of staff involved in the clinics, and the protocols and systems needed to run the clinics effectively.
3. Clinics are held weekly by the practice team, with the DSN and dietitian attending one session each month.

co.uk). Several factors contributed to moving this service initiative forward:

- The nursing manager was keen to develop the nursing roles within the practice.
- The presence of a practice nurse and other members of the team with an interest in diabetes.
- The publication of several Department of Health (DoH) documents: the *National Service Framework for Diabetes: Standards* (DoH, 2001), *Agenda for Change* (DoH, 2004) and *Our Health, Our Care, Our Say: A new direction for community services* (DoH, 2006) and – perhaps more pertinent to the timing – the introduction of the nGMS contract.

A diabetes support team was formed, and consisted of a practice nurse, a GP, a healthcare assistant (HCA) and a receptionist who provided administrative support.

A DSN and a dietitian had recently been employed by Leeds Primary Care Trust to support practices in the development of these clinics. These health professionals provided direct support by running clinics and group education sessions, and helped to develop the skills and knowledge of staff involved in the clinics, as well as the protocols and systems needed to run the clinics effectively.

The aim of the diabetes clinic, as described on the website, is to:

> ***'…provide a service which is based on your individual needs, and have direct access to other health professionals (such as a diabetes specialist nurse, podiatrist and dietitian). We want to ensure that your care is delivered as competently, consistently and concisely as possible by working with your current diabetes care providers.'***

The website

One aim of the diabetes section of the website is to advise prospective students of the service we provide. The web pages contain information on how to register with the practice, and how students can share information about their current clinical care, which, can reduce repetition of tests and investigations and promotes seamless care. Forms can be downloaded and personal information completed prior to registering with us, giving details of students' current diabetes care provider, most recent blood tests or investigations and current insulin requirements. This information can be freeposted back to the practice or brought to the initial appointment so that relevant information is promptly accessible early in the registration period.

The website also contains information developed by the team on:

- Hypoglycaemia and hyperglycaemia.
- Sick day rules.
- The implications of illicit drug taking and alcohol consumption for students with diabetes – an issue facing many students, especially when they first arrive at university.

Links were inserted to many other informative sites that provide diabetes advice. Some of which are especially relevant to the student, for example, travel advice, contraception and pre-conceptual advice.

The website is constantly evolving and has already received favourable reports from students and other health professionals, who have accessed it and found the information clear and informative.

Plans are being made to formally audit the value of the website by asking those students who have accessed it to complete a questionnaire designed to elicit their views and opinions.

Establishing the diabetes clinic

Team meetings were held to develop a pathway of care and a patient journey, and establish individual roles and responsibilities within the clinic.

Clinics are held weekly by the practice team, with the DSN and dietitian attending one session each month.

The students with diabetes identified on the practice register were sent a letter

inviting them to attend the clinic. Initially, however, the response to sending out the letter alone was very slow, so it was decided that in addition to the letter the receptionist would phone the students to encourage them to attend the clinic. This has proved very successful, especially in conjunction with sending text messages to students' mobile phones reminding them of their clinic appointments a few days before the appointment. 'Text messaging appointment reminders' is a service innovation that has been praised by the Department of Health (2006). It has had the effect of reducing the high 'Did not attend' (DNA) rate, which students are renowned for (Centre for Innovation in Primary Care, 1999).

As the knowledge and skills of practice staff regarding the management of diabetes increased, there were tangible benefits for students. The practice noted an overall average reduction in HbA_{1c} of 0.76% since the new service was introduced. For example, many have now realised the benefits of changing to a more flexible insulin regimen at such an unpredictable time in their lives. Furthermore, the diabetes support team has gained the confidence to help students achieve this within the diabetes clinic, with the help of the DSN.

Many students are extremely grateful to have someone listen to them (See *Box 1*, for the response of one student), and perhaps to revisit areas of their diabetes management which, until coming to university, their parents may have had most control over. The clinic has also been of value in providing the opportunity for students to review areas of education that may not have been dealt with if they were diagnosed at a young age, such as contraception, managing alcohol, the use of illicit substances, driving and travel issues.

Annual review

It was necessary to introduce an annual review process to provide structure to the care and to ensure that all elements of the new GMS contract were addressed, in addition to meeting the gold standards of care detailed in the National Institute for Health and Clinical Excellence (NICE) guidelines (NICE, 2004).

The review process is structured as follows:

- Interview with the healthcare assistant.
- Interview with a practice nurse.
- Appointment with a GP.

Interview with a healthcare assistant (HCA)

First the student sees the HCA, who is responsible for recording weight and height and performing venepuncture for relevant blood tests. The HCA also sends a urine sample for microalbuminuria screening and, working within the scope of the standards for medicines management (Nursing and Midwifery Council, 2007) gives flu or pneumococcal vaccinations if required in accordance with a Patient Specific Direction (PSD). The HCA has also received training in testing visual acuity, foot screening and offering smoking cessation advice.

Interview with a practice nurse

The student then sees a practice nurse to work through the annual review computer template. This provides students with the opportunity to discuss any concerns about their diabetes management, including insulin dosage, self monitoring of blood glucose, diet, exercise, alcohol intake, and hypoglycaemic episodes and their

Page points

1. As a result of attending the clinic, many students have realised the benefits of switching to a more flexible insulin regimen.
2. The clinic has also been of value in providing the opportunity for students to review areas of education that may not have been dealt with if they were diagnosed at a young age, such as contraception, managing alcohol, the use of illicit substances, driving and travel issues.
3. Annual review was introduced to ensure that all elements of the new GMS contract were addressed, and the NICE standards of care were met.
4. Text messaging appointment reminders has proved very successsful in reducing the 'Did not attend' rate.

Box 1. Comments from a student, when asked about his views of the service.

'I have had diabetes for 13 years and feel I have wasted many years in repetitive, essentially pointless, diabetic appointments. However, I have always gone.

My first appointment with the Practice Nurse at LSMP [Leeds Student Medical Practice] *was a complete change. I was given relevant, helpful, information concerning my personal lifestyle, really pin-pointing issues rather than giving generic health advice. My bloods, investigations (i.e. feet sensitivity and pulses) and many other extra tests (microalbuminuria) are always completed with an emphasis on trying to 'catch things early.' I feel I can be honest with all the staff involved, not only because they put me at ease but far more importantly because I feel that they will respond to any information that I share, actually making releasing that information worthwhile. I always see the same individuals involved in my care and never feel like I have to start from scratch. As you may have noticed I have nothing but praise for the diabetic programme at LSMP.'*

Page points

1. The possibility of giving advice to students by email is being investigated.
2. Some students have achieved a clinically significant reduction in their HbA_{1c} level as a result of insulin adjustment or other lifestyle advice received in the clinic.
3. The clinic has also given students the opportunity to meet and learn from others with diabetes and has increased their knowledge regarding diet and insulin adjustment.

management.

Appointment with a GP

The student is then offered a 10-minute appointment with the GP timed for 2 weeks later to discuss the blood test results. In addition, students are given the opportunity to transfer their secondary care provider to Leeds for the duration of their studies. Students often prefer to continue attending their home-based teams; however, they can be referred just for annual retinal screening if they wish.

Group education sessions

It became apparent that dietary issues were one area that it was particularly important to address. Many students were trying to manage on a restricted budget and their knowledge of carbohydrates and insulin adjustment was also limited. They were often eating 'fast food' or 'junk food', which was often not helping them to manage their diabetes effectively.

Carbohydrate counting and awareness sessions were organised. Up to eight students were invited to each group education session, where a DSN and dietitian gave specialist advice. Sessions are held three times a year and attendance has been variable; 50% of students have been formally invited and 25% of these have attended. The remaining 50% of students have either already attended similar sessions elsewhere or said they did not want to attend, usually because the timing of the session was inconvenient for their academic timetable. Not only did the students gain information about carbohydrates and how to adjust their insulin dose from these sessions, but they also had the opportunity to mix with and learn from other young people with diabetes.

Future plans

The diabetes support team is working on the development of a patient-held record. As previously stated, students will often attend secondary care clinics near to their home to try to avoid duplication of investigations and aid effective communication. It is hoped that a patient-held record will provide a useful record that can be shared between primary and secondary care, including agreed action plans and goals. This would also enable students to feel more closely involved in their own care – something the Nursing and Midwifery Council (2007) is trying to encourage. The possibility of giving advice to students by email is also being investigated; this has been successful in other areas within the practice, particularly the provision of travel advice.

Conclusion

Some students have achieved a clinically significant reduction in their HbA_{1c} level as a result of insulin adjustment or other lifestyle advice received in the clinic; however, anecdotal evidence confirms that the diabetes clinic and website have improved the care of most students with diabetes registered with the practice to some degree. The clinic has also given students the opportunity to meet and learn from others with diabetes and has increased their knowledge regarding diet and insulin adjustment. ■

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