Coordinated Approach to Care Decreases Foot Amputations

BY HANNAH BROWN
Contributing Writer

GLASGOW, SCOTLAND — Implementation of a dedicated multidisciplinary foot clinic working in collaboration with a community foot protection team cut amputation rates by up to 75% at a hospital in the eastern English town of Ipswich, according to data reported at the Diabetes U.K. Annual Professional Conference.

Ipswich Hospital National Health Service Trust initially set up a foot clinic for patients with diabetes in 1987, but the arrangement did not work very well, according to Dr. Gerry Rayman, a consultant in diabetes and endocrinology at the hospital.

"It was only done once a week with only one treatment room, so the clinic was overcrowded, appointments were delayed, and there was insufficient time to counsel patients, thereby increasing cross-infection risk," said Dr. Rayman.

Other problems included delayed or inappropriate referrals, conflicts over wound care, and low levels of awareness about the clinic on the hospital's wards. "People were sent out from hospital with dressings not appropriate in the community, and patients were kept in hospital far too long," he continued. The result was that "patients admitted to hospital with diabetes would end up with heel problems, even though it was preventable, and there were several unnecessary amputations."

In 1997, Dr. Rayman and his colleagues agreed to develop the patient-centered foot service by giving it a designated area, running it 5 days a week, and appointing a specialized podiatrist and a part-time diabetes specialist nurse linked to the foot clinic and the wards. The team also worked on improving communication between community and inpatient services with a series of meetings and education programs involving surgeons, interventional radiologists, family doctors, and practice nurses.

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The team started surveying the wards twice a week to find patients in need of the service, and took quick action: angioplasty and intervention within a week on urgent cases, within 24 hours on limb-threatening cases, and usually within 2-3 weeks in other cases.

There has been a steady increase in usage since the service was set up. New patient referrals have climbed from just over 100 a year in 2000 to 250 in 2005, and total patient visits have risen from 2,500 to just below 5,000.

"What we have seen is a dramatic increase in new referrals. Not surprisingly, follow-up outpatient appointments have increased dramatically too," said Dr. Rayman.

A prospective audit of the new program was performed during 1997-2000 and then again during 2002-2006, after a break enforced by funding problems. The audit involved identification of all inpatients with diabetic foot problems through visits and phone calls to relevant wards twice a week.

"Everyone coming in who required amputation was identified [without] relying on hospital coding, which misses about 20%," said Dr. Rayman. The results were striking.

"When audit started, there was a fall in amputation rates, particularly in major amputations. When we lost inpatient surveillance [from 2000 to 2002], amputations went up, but now they have gone down again," said Dr. Rayman. "We have had a 50%-75% reduction in amputation rates compared to 1995."

Dr. Rayman said he is convinced that the findings are robust. "We have a very small community, with no cross-boundary referrals, so we can easily identify people who leave our community. Therefore we feel our data are very reliable."

However, he added, "This is just one model. … This system may not be applicable in other geographical locations or with other personnel." ■

Anakinra Aids Glycemic Control in Type 2 Patients

BY PATRICE WENDLING
Chicago Bureau

The blockade of interleukin-1 with anakinra improves glycemic control in patients with type 2 diabetes mellitus, according to results of a double-blind, parallel-group trial.

Researchers said improved glycemic control most likely was due to enhanced beta-cell secretory function (N. Engl. J. Med. 2007;356:1517-26).

"Further studies are needed to test higher doses of anakinra, to evaluate its long-term use, and to test interleukin-1 antagonists that have a prolonged half-life, with the aim of preventing beta-cell destruction and promoting beta-cell regeneration in type 2 diabetes," wrote Dr. Claus Larsen, Steno Diabetes Center, Gentofte, Denmark, and associates.

In the 13-week trial, the researchers randomized 34 patients to 100 mg of anakinra (Kineret) once daily by subcutaneous self-administration, and 36 patients to placebo.

Glycated hemoglobin levels were significantly lower in the anakinra group after 4 weeks compared to the placebo group (an absolute reduction of 0.36%). The average absolute difference in glycated hemoglobin levels between baseline and 13 weeks was a reduction of 0.33% in the anakinra group and an increase of 0.13% in the placebo group.

Also at 13 weeks, beta-cell function increased in the anakinra group and decreased in the placebo group. The ratio of proinsulin to insulin was significantly lower in the anakinra group.

Levels of C-reactive protein and interleukin-6 were significantly lower after both 4 and 13 weeks in the anakinra group than in the placebo group.

Neither baseline values nor changes in levels of C-reactive protein or interleukin-6 were significantly correlated with changes in glycated hemoglobin levels in the anakinra group. This suggests that "reduced systemic inflammation did not play an important part in improved insulin secretion," the researchers wrote.

However, "the response to anakinra might also be attributable to mildly improved insulin sensitivity resulting from reduced systemic inflammation," Dr. Kristina Rother, of the National Institute of Diabetes and Digestive and Kidney Diseases, in Bethesda, Md., suggested in an accompanying article (N. Engl. J. Med. 2007;356:1499-1501).

The researchers said the short duration and the lack of dose finding are weaknesses of the study, which was supported by several foundations, the Center for Clinical Studies at the University of Zürich, the European Union, and Novo Nordisk. The study drug was donated by Amgen.

Several of the authors report having an equity interest, receiving grant support, or being an employee of Novo Nordisk. ■

Vulnerable Patients Need Extra Help Managing Their Diabetes

BY HANNAH BROWN
Contributing Writer

GLASGOW, SCOTLAND — Vulnerable individuals need personalized help and information presented in appropriate formats to enable them to manage their own diabetes, Madeline Turton said at the Diabetes U.K. Annual Professional Conference.

Ms. Turton, a diabetes patient and chair of Diabetes U.K.'s West Dorset Group, Weymouth (England), presented the results of a qualitative investigation into the attitudes of vulnerable groups to information about their diabetes. She defined vulnerable adults as any person older than 18 who may be in need of community care services and unable to take care of themselves or protect themselves against harm or exploitation.

Included in the survey were people from nomadic communities who are transient and hard to reach; people with learning difficulties for whom accessing appropriate information is a problem; and prisoners, of whom a disproportionate number come from ethic groups that have a high prevalence of diabetes. The exact number of patients surveyed was not available.

'People with learning disabilities were worried about parents taking them back home, and elderly people were scared of children putting them in homes or taking them in.'

Through a series of interviews, Ms. Turton sought to ascertain how health professionals could most productively help support these groups. Several points were repeatedly cited by interviewees as potential areas for improvement.

First was the need to meet health professionals in an environment in which they felt comfortable and empowered, usually in the patients' own community. Health clinics frequently do not meet these criteria, said Ms. Turton.

She said the most common request from vulnerable individuals was that health professionals should "use language and resources with which I am familiar and will facilitate my understanding." In addition, the survey highlighted that vulnerable people want messages repeated in "a supportive and nonjudgmental way."

An issue that particularly affects disabled people and those with learning disabilities was the need to maintain their independence, according to Ms. Turton. "Vulnerable people with diabetes need help to gain the support of family and friends without them taking over," she said. "People with learning disabilities were worried about parents taking them back home, and elderly people were scared of children putting them in homes or taking them in."

Vulnerability can be affected by various factors, including level of understanding and state of health (either physical or psychological), Ms. Turton said. But for all groups, communication is vitally important to helping them manage their diabetes.

"Generalization is not helpful, and it is important to realize that people may belong to one or several vulnerable groups," she said.

Ms. Turton said the message to diabetes professionals was that they cannot improve compliance among their vulnerable patients—but they can help their patients to manage themselves. "You can get people into a place where they can better manage their own diabetes and promote personal empowerment through appropriate formatting of information," she concluded. ■