

INTERVIEW

Progress and education in diabetes care

Diabetes Management



NEIL MUNRO* SPEAKS TO SARAH JONES, COMMISSIONING EDITOR:

Neil Munro is visiting Professor in the Department of Health Care Management and Policy, University of Surrey (Surrey, UK). His primary research interests are in management of diabetes, medical education, career decision-making in medicine and medical manpower planning. He is an associate specialist in diabetes at the Chelsea and Westminster Hospital (London, UK) and has worked in specialist hospital based diabetes clinics since 1985. He was a general practitioner in Surrey from 1984 until

2013. He was research officer for the St Vincent's Declaration Primary Care Diabetes Group in 1999 and Chairman of Primary Care Diabetes Europe (PCDE) from 2000 to 2005. He co-founded Primary Care Diabetes, the first global primary care diabetes journal cited on Medline. He was a founder member of the Primary Care Diabetes Society. His main clinical interests are in evolving therapies and the management of diabetes foot complications in primary and secondary care settings. His main educational interests are in career decision-making among doctors as well as medical manpower planning. He has researched assessment methodology used in postgraduate licensing examinations for UK general practitioners.

Q Please could you give us an overview of your professional background to date? After qualifying in medicine and completing house officer posts I joined the Royal Navy on a 5-year commission that included a year as a medical officer on HMS Endurance, the Antarctic patrol vessel, during the Falklands War. I left the navy, completed my vocational training in GP in 1984 and went into practice in Surrey (UK). At the same time I became a clinical assistant in the diabetes unit at Kingston Hospital (UK). I have worked nearly all my professional life in both specialist settings (including three hospitals) and general practice. I retired from GP last year but continue as associate specialist in diabetes at Chelsea and Westminster (UK) hospital where I have been for the

last 14 years. I am also a visiting professor at the Department of Health Care Management and Policy at the University of Surrey. In addition to my diabetes role I was a GP trainer for 21 years, an examiner for the RCGP for 14 years, have a masters in Medical Education from Dundee University (UK) and a DPhil in education from Sussex University (UK).

Q What originally drew you to specialize in diabetes?

On joining the practice I was telephoned by the local consultant physician at Kingston Hospital (on a weekly basis!) asking me if I wanted to join his team on Wednesday afternoon diabetes clinics. I eventually agreed and very soon became immersed in this most fascinating condition. Clinics

News & Views

News

Conference Scenes

Interviews

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were very busy and I witnessed the full range of complications associated with both Type 1 and Type 2 diabetes – or IDDM and NIDDM as they were then called. As the years passed diabetes became an increasingly important part of my working and academic life.

Q What do you think has been the biggest achievement of your career to date?

I think my biggest achievement professionally has been to maintain my interest in diabetes. I am as intrigued by the condition now as I was 30 years ago. I am particularly fascinated by evolving theories around the pathophysiological mechanisms of diabetes and the associated conceptualization and development of novel treatment strategies and therapies. I was chairman of Primary Care Diabetes Europe for 5 years, co-founded the cited Primary Care Diabetes journal and helped found the Primary Care Diabetes Society. On the personal side juggling my career with helping my wife bring up an autistic son has proven, and continues to prove, far and away my greatest challenge

Q As a general practitioner, what changes have you seen in the care of diabetes patients over the last 30 years?

When I started in specialist clinics I frequently saw florid retinopathy and advanced renal failure. Most patients with Type 2 diabetes died prematurely from cardiovascular disease. Obesity was not as prevalent among attending patients! Insulin regimens for Type 1 diabetes were problematic with very troublesome early-morning hypoglycemia. Insulin action was unpredictable. Admissions with diabetic ketoacidosis were common. Devices were basic and there was little in the way of near patient testing. I remember the great excitement when a device the size of a filing cabinet was wheeled down the outpatient corridor and we were told that we could now have blood glucose tests carried out on the patients as they arrived at the clinic. Few practices looked after their own patients with diabetes. Our treatments included glibenclamide and/or metformin and insulin. People now live longer with diabetes, although some are developing Type 2 diabetes earlier than previously. Improved understanding of the importance of good BP and lipid control has increased life expectancy. Drugs and devices have changed beyond measure and there are far more options for people with diabetes. I now see far greater interest in diabetes management among the primary care community

– significantly helped by introduction of quality and outcomes framework – and find the annual Primary Care Diabetes Society (PCDS) conferences one of the most enthusiastic meetings of the year. The number of specialists has also increased very significantly. Previously the responsibility of a general physician with an interest in diabetes and endocrinology, people attending hospital are now looked after by clinicians specifically trained in the specialty. The care of inpatients with diabetes is an area often overlooked by primary care-based commissioners focused on shifting patients from outpatient clinics. At any time 20–30% of patients in hospital have diabetes. These individuals are often very ill with problems initially unrelated to their diabetes but eventually being compounded by their condition. They require the assistance of practitioners familiar with the manifestation of diabetes in all its guises. This requires doctors and nurses to be properly trained in their specialty and to understand diabetes in both its chronic and acute forms. Those working mainly in the community also need to be familiar with the acute complications in order to better understand how to prevent them. They cannot be separated from teams working with complex and unwell patients in specialist settings.

Q You were a founder member of the PCDS; what do you think the role for such organizations is in the education of medical professionals?

I think PCDS has been a fantastic success. Within a decade it has developed, in my view, into the leading organization for diabetes primary care practitioners in the UK. It has multiple roles; political, organizational, academic and educational. In an ideal world all education for primary care would be delivered by such an organization but in reality the organisation does not have the resource to do so on its own. There are very good links with universities and the pharmaceutical industry that have resulted in the creation of high-quality educational programs endorsed by PCDS. The increasing prevalence of diabetes and ever expanding range of therapies means that tomorrow's primary care workforce has to be better educated and prepared for more complex patients managed largely in community settings. I see development of hybrid medical careers, such as core medical training followed by GP training, as being central to the creation of sufficiently skilled and experienced general practitioners

working in primary care in the future. I also envisage practice nurses with a particular interest in diabetes developing their careers and spending more and more of their time dedicated to diabetes alone. An argument could be made that those looking after people with diabetes should spend half their professional lives doing so and that they should have a minimal weekly patient workload in diabetes. Maintenance of good practice among these individuals should involve continuing attachment to specialist diabetes units with extended teams.

Q You have also been involved in running & developing a Master's program in diabetes care. In your opinion, are such programs being used to their full potential?

This is a difficult one to answer. Everyone is looking for accreditation these days and Masters programs seem to be the gold standard. However, universities, in my experience, look on masters programs in a slightly different light from busy healthcare professionals. Quite rightly universities emphasize academia and understanding of research methods. This does not always coincide with learners needs, which are largely based around acquisition of new knowledge and skills. I do think that more flexible vocational qualifications are needed that involve significant clinical exposure to large numbers of people with diabetes over a significant period of time in addition to educational support. In my experience diabetes specialist nurses become highly skilled after about 2 years working full time in their posts. This time frame is very similar for specialist registrars. I strongly feel there should be equivalent levels of experience for primary healthcare professionals intending to manage more complex patients in community settings. This may not be feasible in all practices. To me the most important aspect of education programs for healthcare professionals involved in assisting people with their own diabetes management is that participants understand the pathophysiological processes underlying both Type 1 and Type 2 diabetes. The use of cases exemplifying diabetes-related metabolic disturbances and complications enables healthcare professionals to better understand the action of differing therapies. There are several high-quality MSc diabetes programs in the UK. At Surrey University we are currently developing an MSc program in diabetes and healthcare management, and hope this will

encourage healthcare professionals to develop their clinical and analytical skills.

Q As study lead in DAWN2, could you tell us about the study?

Following the original Diabetes Attitudes Wishes and Needs (DAWN) study, which was conducted over 10 years ago, there was a move towards a more person-centered approach to diabetes care whereby people with diabetes were encouraged to become more actively involved in their own care while being supported by their healthcare teams. Unfortunately, despite this approach being embraced by a large number diabetes care teams, we are still seeing poor outcomes in many people with diabetes. The second DAWN study, DAWN2, was uniquely designed to obtain a 360° perspective on diabetes care from the people with diabetes and those who care for them at home and in the clinic. In all, over 15,000 people with diabetes, their family members and healthcare professionals were involved in this global survey, which also featured representatives from the UK. Participants were asked about various aspects of diabetes care, including self-management, the impact and burden of diabetes, their psychosocial distress and quality of life, and the healthcare and societal support provided. The overall aim of the study was to identify ways of improving diabetes care at all different levels, from initiatives that affect individuals and healthcare organizations up to those that might influence policy.

Q In your opinion, what were the most important study findings?

Of particular interest to me are the adverse effects of hypoglycemia on all three key groups surveyed in DAWN2. A poster on this topic was presented at the Diabetes UK (DUK) Professional Conference earlier this year. We showed that people with diabetes experienced quite frequent minor episodes, but also had at least one severe episode of hypoglycaemia in a year. People with diabetes and family members alike are very worried about the risk of hypoglycemia, with only one third of family members feeling confident in dealing with such episodes. GPs and specialists agreed that reducing the risk of hypoglycemia would clearly be a major improvement in current diabetes medications and would help individuals achieve better outcomes. It is particularly interesting that there is an apparent disconnect between how healthcare

professionals and people with diabetes view their care management. For example, most healthcare professionals indicated that they had performed clinical assessments, such as blood pressure and long-term blood sugar levels, in the previous year, whereas fewer people with diabetes recalled having such assessments; the difference in opinion was particularly noticeable with regards being asked about feeling anxious or depressed and Dr Naresh Kanumilli presented a poster on this apparent disconnect at the DUK Professional Conference this year.

Q Could you tell us about the study's 3-year action plan, in particular aspects relating to the education of healthcare professionals?

To take full advantage of the DAWN2 study, it is expected that each of the countries that participated in DAWN2 would use their countries findings to formulate a relevant plan of action that is tailored towards improving diabetes care in their country. In our DAWN2 National Action Plan (NAP) we have outlined proposed initiatives and actions that we hope will begin to address some of the key unmet needs and barriers to self-management for people with diabetes in the UK.

Two of the key issues identified relating to healthcare professionals were: the disconnect between people with diabetes and healthcare professionals about their perceptions of care; and the lack of psychological and psychosocial care available for people with diabetes. Therefore, to address these issues, two of the main aims of the NAP are: to improve communication between healthcare professionals and people with diabetes about treatment targets and available resources, such as structured education, and to promote awareness among healthcare professionals of the need for people with diabetes, and their carers, to receive psychosocial support and education, and either to refer them for structured education or to discuss the psychosocial aspects of care.

Education for healthcare professionals in the NAP is centered around presentations at national congresses and journal publications of DAWN2 data. This year alone there were five presentations given at DUK, which raised awareness among attendees about hypoglycemia, the disconnect between people with diabetes and healthcare professionals about their care, the impact of diabetes on family members, the attendance at and impact of diabetes education, as well as a guide for healthcare professionals during consultations with people with diabetes.

In addition, three full publications are scheduled for development over the next 2 years. One additional resource currently being developed is a structured education pack for healthcare professionals, nurses and patient groups, which will describe the benefits and cost-effectiveness of structured education for people with diabetes.

Q What do you hope to work on next?

My main interest is in new therapies and technologies in diabetes. Just keeping up with global developments in diabetes is a full-time job. I try to attend the major diabetes conferences. A busy lecture circuit also helps with keeping abreast of new developments – and understandings. In my clinical role I am particularly interested in diabetic foot complications and am keen on further developing our services at the hospital. I hope to continue to teach in both primary and specialist settings and support professionals in developing their careers in diabetes.

Q Where do you envisage your field progressing in the next 5–10 years?

There are a very large number of therapeutic avenues currently being explored and it remains to be seen where they will lead. I think that a closed loop system for Type 1 diabetes will be developed and in clinical use in the next decade or two. Technological advances will also see the emergence of more elaborate blood glucose testing techniques. Other developments including glucose-lowering therapies and prevention strategies will be much slower. Although the range of treatments has increased significantly over the last 30 years, the earlier onset of diabetes, obesity and improved longevity have increased the burden of the condition on both the individual and society. I see no signs of that abating.

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