Managing diabesity: How do we do it?

The World Health Organization (2009) has predicted that 2.3 billion adults will be overweight, and 700 million will be obese, by 2015. There will be a commensurate increase in diabetes and related comorbid conditions. The current cost to the NHS of treating obesity-related conditions already exceeds £5 billion per year (Department of Health, 2013) with the costs to wider society being approximately £20 billion per year. If levels of obesity continue to rise at their present rate, it is estimated that the cost to the NHS of treating obesity-related conditions will double from £5 billion to £10 billion per year by 2050. The expected costs to wider society would be substantially higher (Government Office for Science, 2007).

The cost of managing diabetes and obesity and their associated complications is high, and the indirect costs (e.g. depression, productive years of life lost, etc.) – though difficult to measure – add to the financial burden of these conditions. Recent studies (Flegal et al, 2012; Sturm and Hattori, 2013) show that although the increase in obesity prevalence among adults may be slowing, it continues to increase, especially in those with high BMI measures.

Given the large population affected, and cost burdens outlined above, managing both diabetes and obesity has a large impact on healthcare resources. So how can cost-effective care for these two chronic conditions be delivered?

Most people who are overweight or obese are aware of the need to eat less and exercise more. However, they need guidance as to *how* to achieve these lifestyle changes, and the NHS requires the means to assist them to do so cost-effectively.

Education

The aim of patient education is for people with diabetes and obesity to improve their knowledge, skills and confidence to effectively self-manage these conditions in their daily lives. Some studies suggest that structured education can have a profound effect on health outcomes and significantly improve quality of life (Department of Health and Diabetes UK, 2005). However, few structured education programmes for diabetes and weight management have been associated with long-term success (Minet et al, 2010). In one study evaluating the DESMOND (Diabetes Education and Self-management for Ongoing and Newly Diagnosed) programme, Khunti et al (2012) showed that benefits in biomedical and lifestyle outcome measures were not sustained at 3 years, but some changes to illness beliefs were maintained. The authors concluded that additional support, through increased contact time and frequency, may incur additional benefit associated with important improvements to biomedical outcomes.

Engaging patients using new media

Patient engagement in lifestyle change is crucial. In order to engage with patients, clinicians need to listen and aid them in achieving their goals – which may be quite different to the goals of the healthcare professional. We, as clinicians, are very gluco-centric and weight-centric. In order to improve engagement, we need to identify patients' broader goals and help them achieve these while improving their weight and glycaemic control.

People with diabesity need to know: how to avoid eating energy-dense food when they are stressed; how to avoid eating unhealthy food when healthy alternatives may be considered unaffordable; how to stick to a healthy eating plan during shift work.

In order to provide cost-effective, personalised and flexible health educational for people with diabesity, we need to use newer technologies and social media – facilitated by healthcare professionals. For example, the answer to "how to eat healthily while working shifts" could be better answered by another patient who has succeeded and is linked, by social media, to a fellow patient who is struggling. A diabesity thread on good health for shift workers could allow many people in similar circumstances to join the conversation. They could upload pictures of healthy meal choices while on a shift on WhatsApp (a cross-platform mobile messaging application). A discussion thread on Facebook with a specialist dietitian and other shift workers could be an effective, flexible educational tool.

Social media provides not only opportunities for sharing health information, but also facilitates dialogue between patients, and between patients and healthcare professionals. Virtual support groups and virtual buddies may be a powerful way to improve engagement and reduce cost. In the future, we should be using the latest technological advances, including hologram fitness classes delivered in our patients' living rooms, or, for example, sending a low glycaemic index lasagne – of appropriate portion size based on their blood glucose readings – to their 3D printer. ■

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Department of Health, Diabetes UK (2005) *Structured Patient Education in Diabetes – Report from the Patient Education Working Group*. DH, London. Available at: http://bit.ly/1gVH2qa (accessed 23.05.14)

Department of Health (2013) *Policy: Reducing Obesity And Improving Diet*. DH, London

Flegal KM, Carroll MD, Kit BK, Ogden CL (2012) Prevalence of obesity and trends in the distribution of body mass index among US adults, 1999-2010. *JAMA* **307**: 491–7

Government Office for Science (2007) *Research and Analysis: Reducing Obesity: Future Choices*. GOS, London

Khunti K, Gray LJ, Skinner T et al (2012) Effectiveness of a diabetes education and self management programme (DESMOND) for people with newly diagnosed type 2 diabetes mellitus: three year follow-up of a cluster randomised controlled trial in primary care. *BMJ (clinical research ed)* **344**: e2333

Minet L, Moller S, Vach W et al (2010) Mediating the effect of self-care management intervention in type 2 diabetes: a meta-analysis of 47 randomised controlled trials. *Patient Educ Couns* **80**: 29–41

Sturm R, Hattori A (2013) Morbid obesity rates continue to rise rapidly in the United States. *Int J Obes (Lond)* **37**: 889–91

World Health Organization (2009) *Unhealthy Diets and Physical Inactivity*. WHO, Geneva. Available at: http://bit.ly/Qn5zbC (accessed 22.05.14)