

We need a clear referral staging system for people with diabetes in the UK

According to the most recent facts and figures published by Diabetes UK (2015), around 700 people a day are diagnosed with diabetes. This figure, which is equivalent to one person being diagnosed every 2 minutes, is extrapolated from the number of newly diagnosed people in the 2012–13 National Diabetes Audit. Since 1996, the number of people with diabetes in the UK has more than doubled from 1.4 million to 3.3 million (British Dietetic Association, 1996), and it is estimated that there are around 590 000 people in the UK who have diabetes but have not been diagnosed (Diabetes UK, 2015). In 2014, the estimated worldwide diabetes prevalence for adults between 20 and 79 years of age was 387 million and, by 2035, 592 million people are expected to be affected by diabetes.

It is currently estimated that about £10 billion is spent annually by the NHS on diabetes, which equates to 10% of the NHS budget. This works out at around £1 million an hour (Diabetes UK, 2015). People with diabetes are twice as likely to be admitted to hospital (Sampson et al, 2007), and one in seven hospital beds is occupied by someone who has diabetes, although in some hospitals it is as many as one in three (The Health and Social Care Information Centre [HSCIC], 2013).

Obesity is the most potent risk factor for type 2 diabetes. It accounts for 80–85% of the overall risk of developing type 2 diabetes and underlies the current global spread of the condition (Hauner, 2010). In England alone, almost two-thirds of the adult population are either overweight or obese (Swanton, 2008). A survey of 150 hospital trusts in England in 2007 conducted by Norman Lamb MP (Thornton, 2008) suggested that each trust spent on average £60 000 on specialist equipment for obese patients (e.g. beds, chairs, hoists, operating tables and radiological equipment with a larger weight capacity): a figure that had doubled in 3 years (Morgan and Dent, 2010).

In 2007, modelled projections suggested that the indirect costs of treating obesity could be as much as £27 billion by 2015 (Butland et al, 2007). In 2012, the total cost (direct care and indirect costs) associated with diabetes in the UK stood at £23.7 billion and it is predicted to rise to £39.8 billion by 2035/2036 (Hex et al, 2012).

Measures of obesity and body fat

Obesity has been defined by the National Institutes of Health (NIH) as a BMI of 30 kg/m² or above. BMI acknowledges the relationship between height and weight, and in adults it correlates strongly with the total body fat content; however, it is not a direct measure of fat percentage or distribution and BMI does not distinguish between excess fat, muscle or bone mass. Another caveat with using BMI as a measure of obesity is that the relationship between BMI and “health” varies with ethnicity.

Other measures of body fat, such as waist circumference, skinfold thicknesses, bioelectrical impedance, underwater weighing and dual energy X-ray absorption may be more accurate and informative than BMI. Although these measures may provide a better indication of an individual’s body fatness and risk of obesity-related health problems, they can be expensive, intrusive, not widely available or difficult to standardise across observers or machines. Most of our knowledge concerning obesity-related health risks is based on the association of BMI to various outcomes. Consequently, other measures of body fat are not recommended for routine practice. BMI is a reasonable indicator of body fat for both adults and children. However, BMI on its own should not be used as a yard stick for managing weight and weight-related medical conditions; instead, it should be used to track weight status and as a screening tool to identify potential weight problems in individuals.



Chinnadorai Rajeswaran

Consultant Physician in Diabetes and Endocrinology, Mid Yorkshire NHS Trust, and Chair, National Diabetes Forum

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Bariatric referral

Most hospitals assess patients for bariatric surgery if they have a BMI either equal to or greater than 40 kg/m², or between 35–40 kg/m² in the presence of significant co-morbid conditions (e.g. diabetes or hypertension) that could be improved by weight loss (NICE, 2014). However, due to issues with funding, this is not consistent throughout the UK. There are also guidelines for referring an individual to Tier 3 weight management services (NICE, 2014); however, like referral to bariatric surgery, this can also vary across the UK, in part, depending on the availability of funding.

Referral for diabetes is necessary

Most people with diabetes now have their care provided in the community by their primary care physicians. Most referrals to secondary care are based on the presence of diabetic complications, and there is no standardised protocol for referral. Diabetes is not accepted as a criterion for referral to secondary care, though we clearly know that weight loss can improve the glycaemic control of these individuals.

If 30% of the population is obese and the cost of diabetes and obesity management is spiralling, why are there no clear criteria for referral for diabetes? There should be a staging system for diabetes so that the most appropriate people with type 2 diabetes and obesity are offered the right treatment with the available resources. There is little to be gained from referring a fit and healthy rugby player to a Tier 3 weight management service just because he or she falls into the criterion for referral. Referral to secondary care for someone with an HbA_{1c} of 58 mmol/mol (7.5%) and a BMI of 35 kg/m², who is fit and of Caucasian origin, is again not the most appropriate use of limited health care resources. The Edmonton Obesity Staging System (EOSS) is a five-stage system of obesity classification used in Canada that considers the metabolic, physical and psychological parameters in order to determine the optimal obesity treatment (Sharma and Kushner, 2009). EOSS has previously been reported to be a better predictor of mortality than BMI or metabolic syndrome (Kuk et al, 2011).

A similar staging system should be developed in the UK. The system should be based on BMI, glycaemic control, associated co-morbidities and exercise tolerance and be a clear and concise tool for the referral and management of people with diabetes. ■

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