NICE quality standards: driving improved care?

NICE has produced new quality standards on diabetes in children, young people and adults, and on the assessment and management of obesity.

Steve Chaplin here reports on the standards and their import in the drive towards improving diabetes care.

In 2015, NICE published its updated guideline on the diagnosis and management of type 1 and type 2 diabetes in children and young people (CYP).1 But it’s not enough to tell clinicians and their patients what they should be doing. The National Diabetes Audit has shown that the NHS has not been fully delivering the services it should nor achieving its targets for CYP. The audit of paediatric services for 2014 to 2015, a period covered by the 2004 NICE guideline, showed that only 25% of CYP received all seven recommended care processes; 24% achieved the target HbA1c of ≤58mmol/mol; the prevalence of microalbuminuria or retinopathy was 12–13% among the over-12s; and 27% had hypertension.2

Children and young people

In its introduction to the new quality standard on diabetes care for CYP,3 NICE notes that its latest recommendations for management are more demanding than in 2004. The quality standard aims to improve prompt diagnosis of type 1 diabetes (T1DM) and glycaemic control, reduce complications, improve quality of life and the satisfaction of patient and parents/carers, and increase life expectancy.

The NICE standard contains six statements about the process of care (Table 1). The first requires local arrangements and written protocols that ensure CYP with suspected diabetes are referred and seen by a multidisciplinary paediatric diabetes team on the same day. Delay in diagnosis and care is associated with an increased risk of diabetic ketoacidosis (DKA), and implementation of this statement will be assessed by the number of presentations of DKA.

The education and information offered at diagnosis should be delivered as a programme tailored to individual need and learning style and updated at least annually – that is, education for life, not ‘tell and forget’.

For T1DM, the programme should cover insulin therapy, blood glucose monitoring, the effects of lifestyle and illness on glucose control, managing illness and detecting and managing hypoglycaemia, hyperglycaemia and ketosis. Diet and lifestyle should also be covered for type 2 diabetes (T2DM) but the remainder of the programme should address glycaemic control, metformin therapy and the complications of T2DM and their prevention.

In the management of T1DM, patients and families should be told that a target HbA1c ≤48mmol/mol is ideal to minimise the risk of long-term complications. This requires multiple daily injections, or an insulin pump, and individualised insulin-to-carbohydrate ratios (level 3 carb counting); the NICE guideline also recommends a minimum of five capillary blood glucose measurements/day. This demanding schedule should be taught at diagnosis.

Having enough insulin to reach that target raises the risk of hypoglycaemia and, when this means frequent severe episodes, CYP should be offered real-time continuous glucose monitoring with an alarm. Conversely, insulin under-dosing or illness is associated with DKA and access to blood ketone measuring strips and a meter should be guaranteed, together with instruction on how to use them and interpret the results.

The final statement requires access to mental health services for CYP with T1DM or T2DM – though not, explicitly at least, for their families – and their need should be assessed annually. The professionals who deliver these services should have ‘an understanding of diabetes and the particular problems it

### Table 1. Quality statements for diabetes care in children and young people. (NICE QS125, July 2016)³

<table>
<thead>
<tr>
<th>Statement</th>
<th>Outcome(s) to measure</th>
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<tbody>
<tr>
<td>1 Children and young people (CYP) presenting in primary care with suspected diabetes are referred to and seen by a multidisciplinary paediatric diabetes team on the same day</td>
<td>• Presentations of diabetic ketoacidosis (DKA)</td>
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<tr>
<td>2 CYP with type 1 or type 2 diabetes (T1DM or T2DM) are offered a programme of diabetes education from diagnosis that is updated at least annually</td>
<td>• Quality of life • HbA1c ≤48mmol/mol</td>
</tr>
<tr>
<td>3 CYP with T1DM are offered intensive insulin therapy and level 3 carbohydrate-counting education at diagnosis</td>
<td>• Quality of life • HbA1c ≤48mmol/mol</td>
</tr>
<tr>
<td>4 CYP with T1DM who have frequent severe hypoglycaemia are offered ongoing real-time continuous glucose monitoring with alarms</td>
<td>• Quality of life • HbA1c ≤48mmol/mol</td>
</tr>
<tr>
<td>5 CYP with T1DM are offered blood ketone testing strips and a blood ketone meter</td>
<td>• DKA • Hospital admission rates • Mortality</td>
</tr>
<tr>
<td>6 CYP with T1DM or T2DM are offered access to mental health professionals with an understanding of diabetes</td>
<td>• Self-management of T1DM or T2DM • Adverse events (e.g. severe hypoglycaemic episodes, DKA or self-harm) • Quality of life • Satisfaction of children, young people and their family members or carers with the intervention • Anxiety or depression • School performance or attendance</td>
</tr>
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causes’. Multidisciplinary paediatric diabetes teams should include a psychologist and, recognising that there are often long waiting lists, provide access to them in an appropriate timeframe.

**Adults**

NICE has also updated its 2011 quality standard on diabetes in adults with new statements about supporting lifestyle change and first intensification of glucose-lowering therapy. It has reduced the number of statements from 15 to seven (Table 2), and simplified those that remain; the discontinued statements include participation in annual care planning, adherence to the NICE treatment pathway, insulin initiation and care during pregnancy.

Four of the statements in the new quality standard for adults are concerned with education, two with foot care and one with glycaemic control. The first arguably poses the biggest challenge: persuading people who are at risk of developing T2DM to attend an intensive lifestyle change programme. NICE’s 2012 public health guideline ‘Type 2 diabetes: prevention in people at high risk’ (PHS8) defined this group by fasting plasma glucose level of 5.5–6.9mmol/L or an HbA1c level of 42–47mmol/mol and recommended tests for individuals systematically identified as high risk and for those of South Asian or Chinese origin aged over 25 with a BMI >23kg/m².

Everyone with diabetes should be offered a structured education programme, immediately on diagnosis for those with T2DM. Those with T1DM were formerly expected to be offered a programme immediately, but the timetable has now been relaxed to 6–12 months. For them, the programme should cover a healthy lifestyle, glycaemic control and use of insulin. GPs have a role for all patients whereas education for patients with T1DM is otherwise a secondary care role and T2DM is for primary care.

The most recent guideline on T2DM replaces the traditional terms of first- or second-line glucose-lowering therapies with the concept of first and second intensification. NICE states that timely first intensification will delay the need for second intensification. The quality standard now covers the first intensification: adults who don’t reach a target HbA1c of <58mmol/mol with diet plus monotherapy within six months should be offered dual therapy – that is, metformin plus a DPP4 inhibitor, pioglitazone or a sulphonylurea (or, if metformin is not suitable, dual therapy chosen from the other three). This is another task for primary care and one which offers an opportunity to reinforce advice about diet, lifestyle and adherence to treatment. The previous quality standard did not specify a target, with a requirement to agree one and review treatment.

The National Diabetes Foot Care Audit (N DFA) identified important shortcomings in diabetes services in England and Wales, including delayed referral and triage and lack of clarity among commissioners (albeit with incomplete participation). This has been addressed with two statements that encourage early referral for adults at moderate to high risk of diabetic foot and immediate referral to specialist care for those with limb- or life-threatening foot complications. This, of course, requires access to a footcare service but the NDFA also found a lack of recommended service structures, such that only 14% of patients with an active foot problem were assessed within two days.

The last statement is concerned with improving the quality of hospital stay for people with T1DM. By recognising patients’ expertise in managing their diabetes, the multidisciplinary team will help individuals administer their insulin for themselves (when it is safe to do so). However, this is only half the problem: the 2015 National Diabetes Inpatient Audit found that over one-third of patients rarely or never got the right choice of food.

**Obesity**

According to the latest statistics, 58% of women and 65% of men are overweight or obese and more than 1 in 5 children in school Reception Year and 1 in 3 children in Year 6 are obese or overweight. The prevalence of obesity is now 26%, up from 15% in 1993. NICE’s 2014 guideline, ‘Obesity: identification, assessment and management’, is supported by several quality assurance standards.
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Table 3. Quality statements for clinical assessment and management of obesity. (NICE QS127, Aug 2016)⁸

<table>
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<tr>
<th>Statement</th>
<th>Outcome(s) to measure</th>
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| 1  People are informed of their BMI when it is calculated and advised about any associated health risks | • Patient awareness of their BMI measurement  
• Patient understanding of the health risks associated with their weight |
| 2  Adults with a BMI of ≥30 for whom Tier 2 interventions have been unsuccessful have a discussion about the choice of alternative interventions for weight management, including Tier 3 services | • Patient satisfaction with knowing the full range of choices on offer |
| 3  Children and young people (CYP) who are overweight or obese and have significant comorbidities or complex needs are referred to a paediatrician with a special interest in obesity | • Access to Tier 3 services for CYP who are overweight or obese and have significant comorbidities or complex needs  
• Weight loss in CYP who are overweight or obese and have significant comorbidities or complex needs  
• Exclusion of underlying medical causes of obesity in CYP who are overweight/obese  
• Treatment of comorbidity in CYP who are overweight or obese |
| 4  Adults with a BMI of ≥35 who have been diagnosed with type 2 diabetes within the past 10 years are offered an expedited referral for bariatric surgery assessment | • Bariatric surgery assessments for adults with a BMI of ≥35 diagnosed with type 2 diabetes within the past 10 years |
| 5  Adults with a BMI >50 are offered a referral for bariatric surgery assessment | • Bariatric surgery assessments for adults with a BMI >50 |
| 6  People who have had bariatric surgery have a postoperative follow-up care package within the bariatric surgery service for a minimum of 2 years | • Nutritional status in the first 2 years following bariatric surgery  
• Patient satisfaction with bariatric surgery |
| 7  People discharged from bariatric surgery service follow up are offered monitoring of nutritional status at least once a year as part of a shared-care model of management | • Nutritional status after discharge from bariatric surgery service follow up |

NICE makes the important point that overweight and obesity are now so common that they are becoming the norm, making it harder for people to recognise that they or their children are, or are at risk of being, overweight or obese. Weight measurement is a routine part of many clinical assessments (though the National Diabetes Audit found this was not carried out for 17% of patients with T2DM⁹). It therefore makes sense for everyone to be told what their BMI is and what this means for their health. Anyone with at least Level I obesity (BMI ≥30) despite participating in a lifestyle weight management programme (i.e. a Tier 2 intervention) should discuss with their clinician the choice of alternative interventions and that includes referral to a specialist service (Tier 3).

Bariatric surgery can improve glycaemic control and reduce or delay the need for glucose-lowering medication, and may improve quality of life and reduce the risk of premature mortality for people with obesity and T2DM of >10 years’ duration. Individuals with at least Level II obesity (BMI ≥35) who have been diagnosed with T2DM in the past 10 years should not be expected to try other measures before they are referred for assessment for bariatric surgery. There should be local arrangements and written clinical protocols so that expedited referrals can be made by Tier 3 services or their equivalent. Bariatric surgery is the option of choice for adults with BMI >50 when other interventions have not been effective, provided they are fit for surgery and they commit to long-term follow up to minimise the risk of complications (weight regain, depression, nutritional deficiencies, osteoporosis, anaemia and death).

Follow up will involve primary care, community services and Tier 3 or Tier 4 services so local protocols must be clear about which services deliver the various aspects of care.¹⁰ This could mean three appointments with a dietitian or bariatric physician in the first two years, then annual follow up with either a dietitian or a GP within a locally agreed shared-care protocol. Individuals who have undergone bariatric surgery need lifelong nutritional monitoring and supplementation, which should be delivered at least annually via shared care with collaboration between named Tier 3 specialists and primary care. The care package should include dietary and nutritional assessment, monitoring, advice and support, monitoring for comorbidities, medication review, physical activity advice and support, tailored psychological support, and information about support groups.

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References

References are available online at www.practicaldiabetes.com.
References
1. National Institute for Health and Care Excellence. Diabetes (type 1 and type 2) in children and young people: diagnosis and management. NG18. NICE, August 2015.