Conclusions from the National Diabetes Audit: Could do better

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The National Diabetes Audit was published this June, outlining diabetes care delivery performance throughout England and Wales during 2008–2009. The audit shows that more people with diabetes are now receiving all nine of the key tests for diabetes care recommended by NICE (2004; 2009), but that thousands are still missing out on the essential tests (The NHS Information Centre, 2010).

All people with diabetes should receive nine tests from their GP at an annual review of their diabetes management. These comprise measurements of weight, blood pressure, smoking status, HbA_{1c}, urinary albumin, serum creatinine, cholesterol, and retinopathy and foot screening. As we all know, these tests are essential to ensure that people with diabetes receive appropriate management to control their diabetes and prevent the onset or progression long-term vascular complications (Diabetes Control and Complications Trial Research Group, 1993; Holman et al, 2008).

The audit, which looks at the records of over 1.7 million people with diabetes in England and Wales, found that just over half of people with type 2 diabetes and a third of people with type 1 diabetes received all nine tests in 2008–2009. This compares to only 10.6% and 11.9%, respectively, 6 years ago when the first national audit was conducted. However, the latest figures still remain below the recommended levels set by NICE (2004; 2009) and do not suggest an improved outcome.

The audit found that social deprivation does not affect the likelihood of all the care processes being completed. However, age does have an effect, with younger people receiving these tests less frequently. Ethnicity is also associated with differences in completion of all care processes among people with type 2 diabetes, but surprisingly not in those with type 1 diabetes.

Implications for paediatric care

Although healthcare professionals working in UK paediatric clinics see relatively few children and young people with long-term complications, there are major implications from the findings of this audit for an increased risk of complications in this population. Worryingly, the audit found that only 16.2% of children and young people achieved the NICE (2004) recommended HbA_{1c} level of <7.5% (<58 mmol/mol), with 30% having a high-risk HbA_{1c} level of >9.5% (>80 mmol/mol). In addition, 46% of young people aged 12–24 years experienced more than one episode of diabetic ketoacidosis (DKA) in the past 5 years, with young women being most at risk of recurrent DKA.

These worrying data may be linked to a further finding of this audit: that 96% of children and young people with diabetes may not have received all the care processes recommended by NICE (2004). In particular, most units were not able to deliver a structured education programme, although the cause of this is uncertain. Reasonable assumptions would concern not only a lack of validated education programmes for this age group but also a lack of resources for their delivery.

Two trials – KICk-OFF (Kids in Control of Food; http://www.kick-off.org.uk) and CASCADE (Child and Adolescent Structured Competencies Approach to Diabetes Education; http://cascade.lshtm.ac.uk) – are currently testing structured education programmes for children and young people with diabetes, but further questions need to be raised and addressed. It is widely accepted that education alone is not enough to make a sustainable difference in terms of improved glycaemic control and there are still significant service gaps in terms of dietetic and psychological support and care (Diabetes UK, 2009).

It is disappointing that only 44% of all known paediatric units from England and Wales submitted data to this 2008–2009 audit, although Wales is to be congratulated on a 100% return rate. It is also of concern that nothing has changed, despite similar worrying findings from the previous five Paediatric National Diabetes Audits. Regrettably, there has been no change to the mean HbA_{1c} level overall. It is difficult to ascertain why this is, because audit

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alone, although essential particularly in terms of benchmarking, is not enough to identify cause and effect. Given that disease duration is also a known risk factor for long-term complications, it is essential that resources are invested and further work undertaken to improve health outcomes for children and young people with diabetes.

Recommendations

The audit highlights five key points and associated recommendations from the findings in an attempt to improve care and outcomes for those people living with diabetes.

First, the audit shows that the number of people with diagnosed diabetes has increased by 25% over the past 6 years, with a strong association between socioeconomic deprivation and the rate of type 2, but not type 1 diabetes. Therefore, the recommendations are that:

- Commissioners need to ensure service capacity to cope with rising numbers of people with diabetes.
- Diabetes prevention strategies that can reduce the incidence of type 2 diabetes need to engage, especially with deprived communities.

Second, as discussed earlier, it was found that care process completion continues to improve but that the achievement of treatment targets has stalled, especially in younger people. Over 16% of people with type 1 diabetes have high-risk HbA_{1c} levels (>10%; >86 mmol/mol), with the suggestion that increasing obesity levels may be a barrier to improvement in glycaemic and blood pressure control in type 2 diabetes. To address this, it is recommended that:

- The impact on diabetes management of the societal changes in obesity needs to be recognised and addressed; health promotion, physical activity and diabetes education should be developed and supported.
- There is an urgent need to address the special needs of people with type 1 diabetes; structured education as recommended by NICE (2004) is one mechanism.

Third, the audit suggests that there are geographical and socioeconomic variations in the frequency of diabetes-related complications. End-stage renal disease (ESRD) treatment, in particular, has almost doubled in 6 years. As such, the recommendations are that:

- Commissioners and care providers should consider how to respond to this evidence for continuing health inequality and the consequent increasing costs of potentially preventable diabetes-related complications.
- Progression to ESRD could be reduced if microalbumin testing was comprehensive and, when it was raised, effective blood pressure management was implemented.

Fourth, the audit reported that the high rates of recorded blood pressure, weight and HbA_{1c} measurement suggest that over 90% of people with either type 1 or type 2 diabetes are in contact with their healthcare teams at least once a year. However, the audit shows that these contacts are not being converted into effective care because complication-reducing treatment targets are not being achieved. Therefore, it is recommended that:

- People with diabetes and healthcare providers need to improve their partnership working, jointly agreeing and then achieving treatment goals (care planning).
- Special efforts should be made for people under the age of 40 years who have the greatest lifetime risk of diabetes-related complications, poorer rates of annual review, glycaemic and cholesterol target achievement, high rates of acute complications and increasing obesity.

Fifth, as discussed earlier, children and young people with diabetes have the worst rates of high-risk glycaemic control (HbA_{1c} >9.5%; >80 mmol/mol) and DKA. The audit therefore recommends that:

- Paediatric diabetes teams should work in partnership with children and young people with diabetes and their parents to find ways of improving glycaemic control.
- PCTs should commission services that have the capacity and capability to support improvements in children's diabetes services.

Conclusion

This audit is a huge achievement in the assessment and progression of diabetes care in England and Wales. Although improvements have been made over the past 6 years, there is clearly much left to do. As we move into a new age of austerity, with associated budget cuts and job losses, diabetes care and our resolve to further it will truly be put to the test. This time next year we will have a greater understanding of whether these recommendations have had any impact on the quality of care available for people with diabetes in the UK, but for now the assessment has to be: could do better. ■

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