

State of the outcomes for children and young people with diabetes in England and Wales: National Paediatric Diabetes Report 2010–11

The 2010–11 National Paediatric Diabetes Audit (NPDA) highlights the main findings on the quality of care for children and young people with diabetes in England and Wales (Royal College of Paediatrics and Child Health, 2012). The NPDA is commissioned and managed by the Healthcare Quality Improvement Partnership as part of the National Clinical Audit and Patient Outcomes Programme. The NPDA covers the components of the National Service Framework for Diabetes in England and Wales, and includes details on the number of children and young people with diabetes, the care processes they receive, and the outcome measures, including inpatient admissions for diabetic ketoacidosis (DKA; Department of Health, 2001; Welsh Government, 2002).

There are 185 paediatric centres in England and Wales that provide diabetes care. Records from 23 676 patients aged 0–24 years were received from 180 units. This represents an increase of 22.3% compared with 2009–10, and an estimated coverage of >90% of all children and young people with diabetes in England and Wales (Royal College of Paediatrics and Child Health, 2009).

The percentage of young people 12 years of age and over with all care processes recorded, as recommended by NICE, has increased, and is at its highest since 2004 (NICE, 2004). However, overall, this still remains unacceptably low with only 5.8% of children and young people with diabetes recorded as having received all eight care processes (HbA_{1c}, BMI, blood pressure, urinary microalbumin concentration, serum creatinine level, serum cholesterol level, retinopathy screening and foot examination). This proportion falls far short of similar data for adults from the National Diabetes Audit 2010–11 for adults that shows 54.3% and 60.0%

of adults with diabetes in England and Wales (respectively) received all nine care processes (as above but includes smoking history; Health and Social Care Information Centre, 2012).

Only 15.8% of children and young people achieved the NICE-recommended HbA_{1c} target of <58 mmol/mol (<7.5%) with the greatest numbers of patients having an HbA_{1c} between 58 mmol/mol (7.5%) and 80 mmol/mol (9.5%), and 28.7% having a value of >80 mmol/mol (>9.5%). See *Figure 1* for a summary of this information. The percentage achieving an HbA_{1c} level of <58 mmol/mol (<7.5%) has increased marginally from 14.5% in 2009–10 to 15.8% in 2010–11. However, there still remains considerable variability across the two nations between individual centres, and this is suboptimal compared with some other European countries. Data from the German and Austrian registry demonstrates that approximately 35% of children and young people with diabetes have an HbA_{1c} level of <58 mmol/mol (<7.5%; Rosenbauer et al, 2012).

In both England and Wales, there has been an increase in the incidence of DKA emergency admissions from 2005–6 to 2010–11, which is most marked in the 15–19 year age-range. In relation to the prevalent population of children and young people with diabetes in this age group, there has been an increase from 2.1% to 10.8% for males and 3.4% to 18.4% for females in England, and from 2.4% to 9.2% for males and 5.3% to 13.0% for females in Wales.

The NPDA has demonstrated little improvement in outcomes of care and participation in care processes over the last 8 years in England and Wales. There has also been an alarming increase in the number of children and young people being admitted with DKA. This cannot be allowed to continue and time has come for a concerted effort to improve



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“The National Paediatric Diabetes Audit is keen to engage patients, clinicians and other stakeholders in England and Wales in order to improve outcomes for children and young people with diabetes.”

quality of care. There have already been many changes in the way services are structured and delivered over the last few years. In England, with the help of NHS Diabetes, 10 regional networks have been established, geographically located in former regional health authorities. The development of such networks should help considerably in the collection of annual audit data and provide a facility for monitoring and benchmarking of services within a region. The ultimate aim is to improve quality of care across a region and remove inequalities of service provision.

Over the last few years, there has been a move towards intensification of therapy, including insulin dose adjustment for carbohydrate intake using multiple daily injections or continuous subcutaneous insulin infusions (or both). There is also recognition of the need for continuous structured education programmes starting at diagnosis and continuing throughout childhood, adolescence and the transition into adult services.

In the last year, a best practice tariff has been introduced in England to enhance the funding of paediatric diabetes services, with the aim of driving up the quality of care and improving outcomes for children and young people with diabetes. Participation in the NPDA is one of the key requirements to receiving the best practice tariff and it is envisaged that outcome

data for individual centres will be utilised as part of a quality assurance programme, which has already begun in England. The Royal College of Paediatrics and Child Health recognises that participation in the NPDA is a time-consuming process, particularly where there is a lack of resources and computer software to aid data collection. Furthermore, there is a need to explore the dataset in a more meaningful manner to provide centres with outcome data that can be utilised to improve quality of care. The NPDA have already undertaken a number of steps to address this. Namely, a new more comprehensive dataset and a new web platform have been developed for 2011–12 data collection, which will allow a more accurate data capture and should contribute towards maximising the use of audit results. There is also a new Patient Reported Experience Measure Questionnaire (PREM) that was implemented across the country in 2012, the results of which will be linked to the NPDA care processes and outcomes. The NPDA is keen to engage patients, clinicians and other stakeholders in England and Wales in order to improve outcomes for children and young people with diabetes. I, for one, would like to thank all those who have participated in data collection and submission without which the NPDA would not be possible. ■

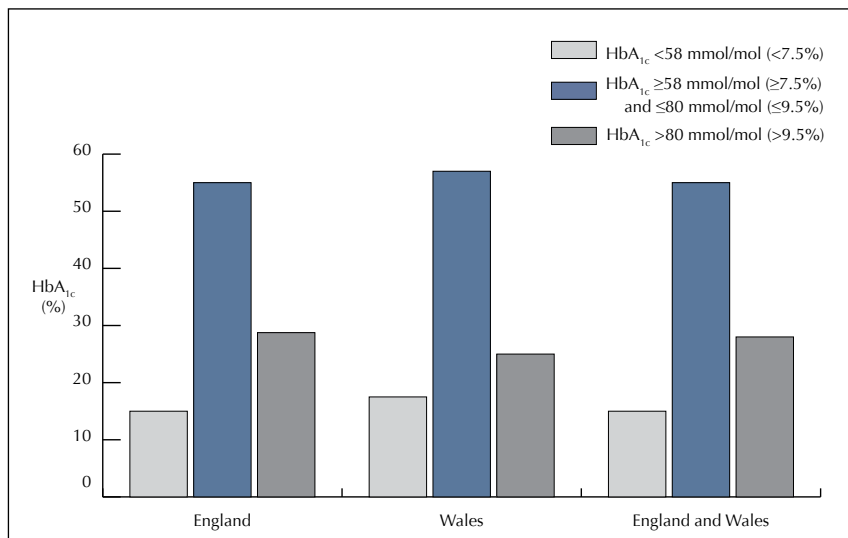


Figure 1. Percentage of children and young people achieving the NICE recommended HbA_{1c} target of <58 mmol/mol (<7.5%), ≥58 mmol/mol (≥7.5%) to ≤80 mmol/mol (≤9.5%), and >80 mmol/mol (>9.5%), by country, 2010–11.

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