

# Can education of healthcare professionals address variation in outcomes in children and young people with diabetes?

**D**ramatic changes in the structure and process of delivering clinical care to children and young people (CYP) with diabetes have had little effect on outcomes over recent years. The latest *National Diabetes Paediatric Audit* (RCPCH, 2012), with nearly 100% ascertainment of clinical data from paediatric diabetes units in England and Wales, shows less than 15% of CYP with type 1 diabetes achieve the NICE target of  $HbA_{1c} < 58$  mmol/mol (7.5%), remaining unchanged over the last 7 years. The *NHS Atlas of Variation in Healthcare for Children and Young People* (RightCare, 2012) highlights the urgent need to reduce the variation in care, improve  $HbA_{1c}$  and reduce admissions to hospital with diabetic ketoacidosis. In addition, the clinical care of CYP with diabetes in hospital has highlighted significant deficiencies in inpatient care, especially in insulin drug errors, supporting the need to improve the training of healthcare professionals (HCPs) at ward level (Edge et al, 2012). These poor outcomes have instigated the introduction in England of a Best Practice Tariff to assist the paediatric multidisciplinary team (MDT) to focus on 13 quality standards of clinical care (Department of Health, 2013). However, changes to date have not been accompanied by a standardised and mandatory investment in HCP training.

The ability to reproduce the same outcomes relies on having an experienced MDT with integrated and cohesive working practices. Such a team has been clearly described in the global and European contexts respectively (IDF/ISPAD, 2011; de Beaufort et al, 2012). For over 20 years, the Hvidoere Study Group has examined the persistent centre differences across 23 countries concluding that “it is the underlying therapeutic philosophy based on a qualified common training for all team members delivering diabetes care and education to the families that drives improvement” (Cameron et al, 2013). The European SWEET Project showed the lack of consistency between training different HCP groups and MDTs, and a lack of

mandatory training (Waldron et al, 2012). It is against this background that the UK must now focus on the education of all HCPs and diabetes MDTs. This will provide the knowledge, skills and competency levels to deliver a high-quality service that should start to change outcomes for our CYP with diabetes.

Within the recently published *National Paediatric Diabetes Service Improvement Delivery Plan 2013–2018* (NHS Diabetes, 2013a), the priority for establishing a “standardised, accredited and structured education for healthcare professionals” is clearly identified. With the assistance of established UK university providers of education, MDT members, parents and a wide range of relevant stakeholders, a *National Curriculum for the training of Health Care Professionals who care for Children and Young People with Diabetes Mellitus* (NHS Diabetes, 2013b) has been developed based on the original SWEET Project Curriculum (Danne et al, 2012) and a TREND document (TREND-UK, 2010). With the full endorsement from all the relevant associations, the now-disbanded NHS Diabetes published the curriculum in March 2013. Aligned with this documentation, national academic units are using the curriculum as a core foundation for their accredited training courses. We hope that it will be used in all centres and provide a consistent template for learning for both individual HCPs and the MDT. An active team-learning environment can be facilitated by using this document alongside the standards in the Best Practice Tariff, the NICE (2004) guidelines, ISPAD guidelines (Hanas et al, 2009) and the IDF *International Standards for Diabetes Education* (IDF, 2009).

The development of our workforce needs to focus not only on clinical knowledge and skills but also on the establishment of in-depth educational competencies that are age related and family focused, and that can be placed at the core of service delivery. A standardised approach to the education of the UK workforce is a key component of care that will facilitate a shift towards optimising glycaemic control and the well-being of our CYP and families. ■



**Fiona Campbell**

Consultant Paediatric Diabetologist, Leeds Children's Hospital, and Clinical Lead for the National Diabetes Peer Review Programme, NHS IQ



**Sheridan Waldron**

Education Lead for Children and Young People, hosted by Diabetes UK

## References

- Cameron FJ, de Beaufort C, Aanstoot H-J (2013) Lessons from the Hvidoere International Study Group on childhood diabetes: be dogmatic about outcome and flexible in approach. *Pediatr Diabetes* 30 Apr [Epub ahead of print]
- Danne T, Aschmeier B, Perfetti R, the SWEET group (2012) SWEET – Better control in pediatric and adolescent diabetes: Working to create centres of reference. *Pediatr Diabetes* 13(Suppl 16): 1–75
- de Beaufort C, Vazeou A, Sumnik Z et al (2012) Harmonize care to optimize outcome in children and adolescents with diabetes mellitus: treatment recommendations in Europe. *Pediatr Diabetes* 13(Suppl 16): 15–9
- Department of Health (2013) *Best Practice Tariff for Paediatric Diabetes*. DH, London. Available at: <http://bit.ly/19G0te9> (accessed 14.10.13)
- Edge JA, Ackland F, Payne S et al (2012) Inpatient care for children with diabetes: are standards being met? *Arch Dis Child* 97: 599–603
- Hanas R, Donaghue K, Klingensmith G, Swift PGF (2009) ISPAD Clinical Practice Consensus Guidelines 2009 Compendium. *Pediatr Diabetes* 10(Suppl 12): 1–210
- IDF/ISPAD (2011) *Global IDF/ISPAD Guideline for Diabetes in Childhood and Adolescence*. IDF, Brussels. Available at: <http://bit.ly/16vnxNI> (accessed 08.10.13)
- International Diabetes Federation (2009) *International Standards for Diabetes Education* (3rd edition). IDF, Brussels. Available at: <http://bit.ly/16wMd8A> (accessed 09.10.13)
- NHS Diabetes (2013a) *National Paediatric Diabetes Service Improvement Delivery Plan 2013–2018 (diabetes in children and young people aged 18 and under)*. Available at: <http://bit.ly/1cbrFqC> (accessed 22.10.13)
- NHS Diabetes (2013b) *National Curriculum for the training of Health Care Professionals who care for Children and Young People with Diabetes Mellitus*. Available at: <http://bit.ly/17CWkvb> (accessed 14.10.13)
- NICE (2004) *Type 1 diabetes: diagnosis and management of type 1 diabetes in children and young people*. RCOG Press, London. Available at: <http://bit.ly/1cs1QSk> (accessed 08.10.13)
- RightCare (2012) *NHS Atlas of Variation in Healthcare for Children and Young People*. RightCare, London. Available at: <http://bit.ly/1QyF50t> (accessed 24.09.12)
- Royal College of Paediatrics and Child Health (2012) *National Diabetes Paediatric Audit Report, 2010–2011*. RCPCH, London. Available at: [www.rcpch.ac.uk](http://www.rcpch.ac.uk) (accessed 08.10.13)
- TREND-UK (2010) *An Integrated Career and Competency Framework for Diabetes Nursing*. SB Communications Group, London. Available at: [http://www.trend-uk.org/documents/TREND\\_3rd.pdf](http://www.trend-uk.org/documents/TREND_3rd.pdf) (accessed 08.10.13)
- Waldron S, Rurik I, Madacsy L et al (2012) Good practice recommendations on paediatric training programmes for health care professionals in the EU. *Pediatr Diabetes* 13(Suppl 16): 29–38