National Recognition and Accreditation Programme for Structured Diabetes Education Programmes (NRAP-SDE)

Discussion paper for Partha Kar and Jonathan Valabhji

August 2017

WHY A NATIONAL RECOGNITION AND ACCREDITATION PROGRAMME?

The case for this was made very clear in a recently presented discussion paper (March 2017) *A Model for National Accreditation of Patient Structured Diabetes Education Programmes* (attached). The lack a formal pathway for recognition of SDE versus devices and drugs in diabetes has been recently highlighted.[1] The paper proposed two options for consideration. In response to the paper's proposal, we were asked to prepare this document, further detailing the potential implementation of **Option 1:** To create a new process to review and validate the evidence-base for Structured Diabetes Education (SDE) programmes, and to accredit and ensure ongoing quality assurance of educators. This National Recognition and Accreditation Programme for SDE will certify provider and host organisations against the 2011 NICE Quality Standards[2].

The aim of the NRAP-SDE:

The aim will be to formally assess and approve programmes at a national level that have demonstrated that they effectively deliver an evidence-based structured education programme as per NICE Quality Standards[1]. The NRAP-SDE will assure NHS England, clinical commissioners, people with diabetes and their carers, and other key stakeholders that the content of SDE programmes being provided, and the referral processes, programme outcomes and training of educators are supported by accurate, reliable and trustworthy information. These aims will be achieved through two related work streams:

- **PROGRAMME RECOGNITION: A process for formally recognising programmes that are evidence-based and fulfil NICE quality standards**
- **QUALITY IMPROVEMENT: Collection and provision of national data to facilitate an ongoing quality improvement cycle, to ensure that recognised SDE are optimally accessible, have monitored outcomes and is used as a means to identify and address important gaps in service provision**

The NRAP-SDE key objectives

PROGRAMME RECOGNITION (Figure 1):

- Review SDE against NICE Quality Standards through a rigorous and transparent process.
- Develop and maintain a registry of SDE programmes in the UK that are nationally recognised for their ability to deliver effective, evidence-based diabetes structured education.
- Annually review and update key stakeholders on new and emerging evidence that contributes to the evidence base and ensure that it meets the recognised hierarchy of reliability.
- Create opportunities for diabetes educators' career progression
- Improve research awareness, comprehension, and analysis of relevant scientific information in diabetes education

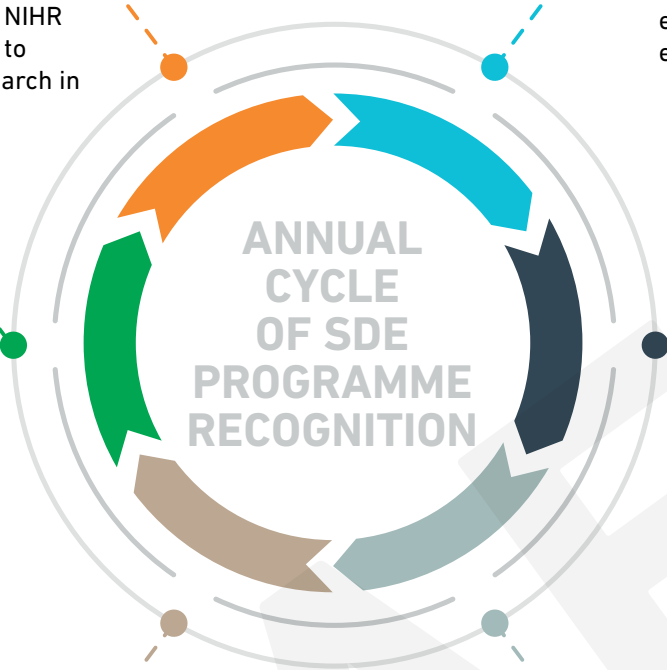
QUALITY IMPROVEMENT (Figure 2):

- Ensure evidence-based structured education is made available equitably to people with diabetes.
- Assure programme quality, fidelity to scientific evidence and use of effective diabetes interventions throughout the UK, including robust audit and reporting processes.
- Optimising implementation including uptake and accessibility of SDE
- Provide technical support and guidance for existing and potential SDE programme providers and assist staff in programme delivery and in problem solving to achieve and maintain national recognition status.

NICE QUALITY STANDARDS:

- ☑ **It is evidence-based, and suits the needs of the person.**
- ☑ **It has specific aims and learning objectives, and supports the person and their family members and carers in developing attitudes, beliefs, knowledge and skills to self manage diabetes.**
- ☑ **It has a structured curriculum that is theory driven, evidence based and resource effective, has supporting materials, and is written down.**
- ☑ **It is delivered by trained educators who have an understanding of educational theory appropriate to the age and needs of the person, and who are trained and competent to deliver the principles and content of the programme.**
- ☑ **It is quality assured, and reviewed by trained, competent, independent assessors who measure it against criteria that ensure consistency.**
- ☑ **The outcomes are audited regularly.**

PROGRAMME RECOGNITION (FIGURE 1):



STAGE 1

Baseline of existing evidence and review of existing programmes

STAGE 2

1) Independent review of evidence from the literature
2) Submission from programmes for recognition.

Existing national programmes in Type 1 and Type 2 to submit, plus open submission from other programmes.

STAGE 3

Data summarised and evaluated against NICE Quality Standards:

- ☑ Published evidence
- ☑ Written curriculum
- ☑ Educator training
- ☑ Educator quality-assurance*
- ☑ Submission of audit data (see Figure 2)

STAGE 4

National recognition panel convened for assessment of programes

STAGE 5

✔ Full recognition of status and addition to National Register

◑ Provisional recognition requiring further evidence to be submitted in next cycle

✖ Rejection with feedback

STAGE 6

Structured feedback of research gaps to NIHR and other bodies to commission research in these areas

MEMBERSHIP OF THE NATIONAL RECOGNITION PANEL:

- Independent chair
- Patient representatives
- Associations including: DUK, ABCD, PCDS
- National programme representatives
- Experts to include: Psychology, Dietetics, Physical Activity and Clinicians
- International Expert
- Full DOI required

DELIVERABLES:

- Updated register of nationally recognised programmes
- List of accredited educators
- Agreed competency framework for accredited educators
- Annually updated evidence review
- Ongoing ability to adapt and respond to evidence base
- Link to highlight gaps in the evidence to allow the NIHR and other research funders to commission research in these areas

***Quality Assurance (QA)**

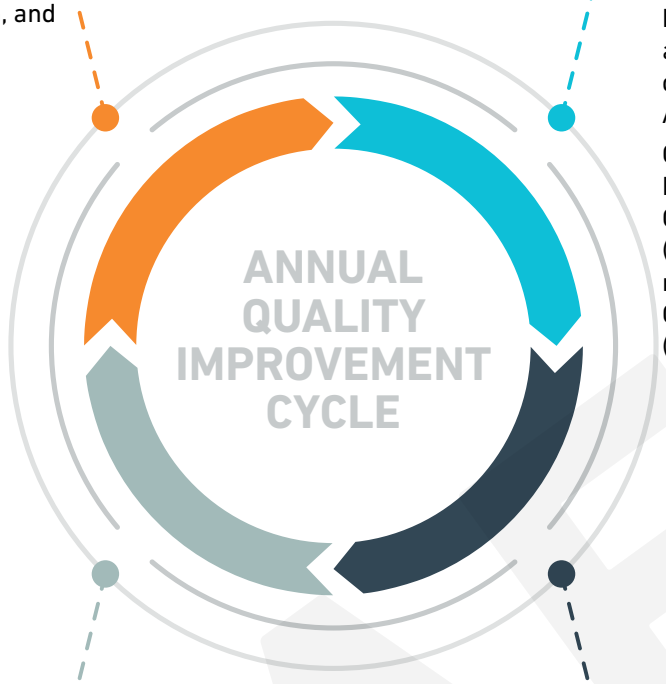
A QA programme needs to be in place. The programme needs to be reviewed by trained, competent independent assessors who assess against:

Environment; Structure; Process; Content; Use of materials; Whether the programme has actually been delivered; Evaluation and outcome information.

Guidelines recommends that SDE should establish three components of a QA system[4]:

1. An assessment tool based on the course manual;
2. Core standards linked to the content, process and Philosophy/style of the programme;
3. Trained assessors who use the tool to observe the delivery and provide feedback to the educator, based on the observed behaviours in comparison with the standards.

QUALITY IMPROVEMENT (FIGURE 2):



STAGE 4

Monitor the action plan, and complete the QI cycle.

STAGE 1

Baseline existing data and consider sources for data collection see Appendix A:

Opt 1. Data from SDE Provider (NDPP Model)
Opt 2. Routine Data (from Electronic health records - NDA)
Opt 3. Mixed model (from both)

STAGE 3

Produce reports for:

- NHS England
- Service Users
- Providers of programmes
- CCGs
- SCNs or STPs
- Recognition panel

Formulate a collaborative action plan to address priorities, optimising implementation and outcomes

STAGE 2

Agree core data set and pilot extraction for recognised programmes

DELIVERABLES:

- Updated improvement/audit data to inform NHSE
- Ability to identify gaps in SDE provision
- Engagement and constructive feedback to organisations providing SDE
- Continuous improvement addressing priorities, optimising implementation and outcomes
- Ability to compare different programmes

TIMELINES:

INITIATION PHASE	
Outcomes:	**1. Agree and established governance structure for the programme** **2. Establish taskforce** with **TOR** with a lead programme manager appointed **3. Agree and define infrastructure, i.e.** • T1 and T2 subgroups • Clinical/academic leads, statisticians, data managers, central or local databases, agree data base hosting arrangements & core team (see Appendix B) **4. High-level development and rollout for development phase** **5. Business case** **6. Contract with T&Cs between providers and NRAP.** **7. Project risk assessment.**
Timelines:	**1-3 months**
Dependencies	• **Agree a budget to support initial meetings and key stake holders' time and talent** • **Support and funding from NHS England** • **Legal advice & support in relation to contract between parties involved**
DEVELOPMENT PHASE	
Outcomes:	**1. Consolidate programme governance** **2. Standard Operating Procedure (SOP) for a national accreditation programme** (see Appendix C for outline framework) **incorporating national standards for SDE** **3. Define and agree pilot scope and test phase** **4. Delivering IT systems and other resources, i.e. marketing**
Timelines:	**4-6 months**
Dependencies	• **IT support** • **Marketing support** • **Core team & steering committee**
PILOT AND EVALUATION PHASE	
Outcomes:	**1. Written report with lessons learned** **2. Refine** **3. Plan national implementation rollout**
Timelines:	**6-month minimum to complete audit cycle**
Dependencies	• **Agreement pilot sites/organisation**
NATIONAL ROLLOUT PHASE	
Outcomes:	• **TBC with expert taskforce**
ESTABLISHED IMPLEMENTATION PHASE	
Outcomes:	• **TBC with expert taskforce**

APPENDIX A: IMPROVING THE DELIVERY AND OUTCOMES ASSOCIATED WITH SDE – SOURCES OF DATA COLLECTION

All recognised SDE programmes would be audited on an annual basis to ensure equitable delivery and that attendance is associated with improved patient outcomes (a marker of the quality of delivery). There are three options outlined below for the provision of such data.

1. Provider supplies data as currently occurs in the National Diabetes Prevention Programme (NDPP)

The four providers of the NHD DPP are mandated to provide a minimum data set to NHS England for all referrals to the programme. These data are centrally collated by NHS England. The benefits of this approach are that (i) data collection is not reliant on electronic health record (EHR) data (where the recording of attendance at SDE is known to be poor); (ii) no additional burden on primary care; (iii) linking provision of data to payment, ensures complete returns. But this does duplicate work by recording some data in two places (primary care EHR and provider data) and all providers may use different databases to collate data which will increase the time needed to collate the data into a single coherent data set. Also currently not all providers routinely collect outcome data, such as HbA1c, weight, blood pressure etc.

The table across shows the data collected for the NDPP. DAFNE currently collect data on T1DM and holds this on a National DAFNE database.

2. Using routine data - For example using data from electronic health records / National Diabetes Audit

Data could be extracted from primary care electronic health records, the data required could be integrated into the annual National Diabetes Audit (NDA). This data is validated annually. Using this data does offer a number of advantages: (i) it makes best use of routinely collected data; (ii) there is no requirement for providers to provide data; (iii) the mechanism of data collection is already set up. The main disadvantage of this mode of data collection is the level of data regarding referral and uptake to SDE recorded in primary care. For most patients referral will be coded but data from this point is known to be unreliable. Additionally the NDA is not compulsory and there is not 100% uptake of all GP practices nationally, although completion rates are increasing and currently around 85% of practices provide data on an annual basis.

3. Using a mixed model

Given the limitations of the two approaches outlined above, the optimal approach might be to use a combined model whereby implementation data is provided directly from providers and patient outcome data is provided through the NDA. Using this approach implementation data could be assessed as per the regulations, with outcome data assessed annually. Also over medium term work with NDA and NHSE to have better integration and access to routine data for quality improvement programmes.

Core data required for quality improvement cycle

IMPLEMENTATION DATA	PATIENT OUTCOME DATA

In the past 6 months:
• Number referred
  - By gender
  - By age group
  - By ethnicity
  - By deprivation status
• Number attended
  - By weekday day, weekday evening, weekend
  - By gender
  - By age group
  - By ethnicity
  - By deprivation status
• Average and range time from referral to attendance
• Reasons for non-attendance
• Number completing programme
• Time of drop-out
• Reasons for drop-out
	6 and 12 months post referral
	• HbA1c
	• Systolic BP
	• Diastolic BP
	• Total Cholesterol
	• Weight
	• BMI
	• Smoking status
	• Some patient related outcome measures (PROMS) TBD
	
	* For Type 1 programmes may wish to add additional data such as DKA, hypoglycaemia events, etc.

STAGE OF IMPLEMENTATION NDPP	REPORTING REQUIREMENT NDPP
Referral	• Numbers identified and referred • Where referrals have come from • Demographic information of individuals referred (to include information linked to health inequalities) • % referrals from lowest two deprivation quintiles = 50%
Follow up on referral	• Number and % of referrals contacted by the provider within 2 weeks of referral being received • Number and % of individuals offered a first appointment - Breakdown of dataset by referral information • Number and % of individuals not offered a first appointment - Breakdown of dataset by referral information - Reasons first appointment not offered
First appointment	• Number and % of individuals who attend a first appointment - Breakdown of dataset by referral information • Number and % of individuals who do not attend a first appointment - Breakdown of dataset by referral information - Reason for non-attendance • Data from individuals: - HbA1c (range and average) - Weight in kg (range and average) - Height in cm - BMI calculation (range and average) - Wellbeing score (range and average) - Breakdown by demographic information • Number and % of individuals eligible / not eligible for the intervention - Breakdown of dataset by referral information - Reasons for non-eligibility and any ongoing referral
Behavioural intervention	• Number and % of individuals who start the intervention - Breakdown of dataset by referral information • Number and % of individuals who do not start the intervention (DNA) - Breakdown of dataset by referral information • Attendance throughout the intervention - Breakdown of dataset by referral information and provider information • Engagement: Number and % attending a minimum of 4 hours • DNA: Number and % not attending a minimum of 4 hours • Completion: Number and % of individuals who attend 75% of the intervention - Breakdown of dataset by referral information • Number and % of individuals who drop-out of the intervention - Breakdown of dataset by referral information - Time of drop-out - Reason for drop-out
During intervention	• Fidelity to core programme components • Participant perspectives on the service • Implementation information • 6 month check: - HbA1c (report changes) - Weight (report changes in kg and %)
Post-intervention (12 months)	• HbA1c (FPG for those in whom HbA1c cannot be used) (range and average) • Change in HbA1c (change in FPG for those in whom HbA1c cannot be used) (range and average) • % total referrals demonstrating 2 mmol/mol reduction in HbA1c (in those where HbA1c cannot be used, % referrals demonstrating reduction in FPG of 0.2 mmol/l). • Weight (range and average) • Change in weight (kg and %, range and average) • % total referrals demonstrating 5% reduction in weight • Record number and weight loss in kg at 12 months = +0, -0-5kg; -5-10kg; -10-15kg; -15kg+

APPENDIX B: NRAP-SDE ROLE & RESPONSIBILITIES

Adapted from the CDC Diabetes Prevention and Recognition Program[3].

Core full-time staff:

NRAP Senior Project Manager (NHS Band 8B/C):

- Oversees work of the entire NRAP
- Manages staff where appropriate
- Manages revision of evidence-based Standards
- Conducts development and oversight for multiple contracts
- Works with Division leadership on programme, policy, resource material, and research and evaluation report production
- Develops and conducts presentations on NRAP work and findings
- Provides delivery organisations with technical assistance when management perspective is necessary
- Oversees all curricula decisions & updates

Lead Clinicians/Academics (Type 1 & Type 2 specialties – Band/Grade TBC):

- Oversees the work outputs of data-related to their specialties
- Serves as a NRAP data subject matter expert
- Oversees organisation-level progress/evaluation reports
- Monitors dataset for status of organisation data and corresponding reports
- Oversees & Monitors data issues, including those linked to new policy implementation
- Participates in Meeting with delivery organisations & NHS England

Senior Statistician/Data Analyst (HEI Grade 8):

- Serves as lead evaluator and statistician for NRAP
- Leads the development of all data collection efforts, and resulting data analyses (cleaning and validation) in preparation for reporting to NHS England & other key stakeholders.

Database Developer/Administrator (NHS Band 5/6):

- Developed and maintains NRAP database that houses all NRAP-recognised organisations' records
- Provides technical answers on data queries
- Develops and monitors system of reports for internal NRAP use
- Continually monitors and troubleshoots NRAP databases and upgrades software/platforms to confirm solution compatibility
- Participates and/or leads data migration plans when needed
- Programs and maintains a map of NRAP-recognised organisations class locations and a registry of all recognised organisations in real time

Associate Statistician TBC (HEI Grade 6/7):

- Manages the data submissions from delivery organisations, including running data validation
- Provides customer service to organisations on data issues
- Manages and prepares monthly and quarterly spreadsheets for the specific, routine analyses
- Leads monthly NRAP data submission webinars
- Works along with the data team on updating the data validation rules when need
- Conducts data validations and generates detailed error reports for all organisations with errors in submitted data
- Communicates with organisations regarding data inquiries or data cleaning
- Works with other data contractor to develop validations when needed

[3] Centers for Disease Control and Prevention. 2017. *Diabetes Prevention Recognition Program: Standards and Operating Procedures*. [Online] Available from: https://www.cdc.gov/diabetes/prevention/pdf/dprp-standards.pdf [Accessed 17 August 2017]

NRAP Technical Assistance Coordinator (Type1 & Type2) (NHS Band 4/5):

- Monitors email box daily to triage questions that come to NRAP
- Performs data entry for changes in organisation name, address, contacts, curriculum
- Reviews all alternate curricula i.e. web-based programmes , includes coordination and assurance of intra-rater reliability with secondary curriculum review expert
- Processes all applications for NRAP recognition
- Conducts technical assistance calls daily, including reviewing progress/evaluation reports, reviewing pending vs. full recognition status and tips for success
- Produces qualitative information for NRAP progress and evaluation reports
- Reviews and edits any technical assistance-related materials for delivery organisations

NRAP Curriculum Review Expert WTE TBC (Band/Grade TBC)

Serves as a secondary reviewer for all alternate curricula submitted

APPENDIX C: STANDARD OPERATING PROCEDURE - DRAFT OUTLINE

1. Standards and Requirements for Recognition

1.1 Participant eligibility
1.2 Robust referral pathway to programmes.
1.3 Safety of participants
1.4 Data collection & reporting mechanisms – organisation code
1.5 Location
1.6 Staffing/educators
1.7 Curriculum & Content
1.8 Quality Assurance of educators

2. Requirements for Pending and Full Recognition (see table /pathway)

2.1 Application – submit full completed application at: .....TBA
2.2 Curriculum – to be evidenced from efficacy and effectiveness trials
2.3 Intervention duration & intensity – minimum??? Any follow up?/boosters

3. Additional requirements for Full recognition status –based on evaluation data.

3.1 Reported Attendance data – including time line from point of referral to attendance.
3.2 Reported Biomedical data - A1c, Lipids, BP, smoking status
3.3 Reported Physical activity data – in minutes and intensity
3.4 Weight at baseline & weight loss at time intervals TBA

4. Step by step guide to applying for recognition & re-applying/renewal

4.1 Type of application, i.e. First time
4.2 Organisation code
4.3 Organisation name, address, programme lead contact details

5. Submitting re-evaluation data

5.1 Data evaluation requirements & standards.
5.2 Random audits – process
5.3 Quality assurance of educators

6. Administration of approving expert panel.

APPENDIX D: HEADINGS FOR COSTS - Please see attachment for current breakdown V1

PROGRAMME INITIATION: YEAR 1 - QTR 1	
Objectives	**Resources**
1. Establish taskforce	Programme Leads (T1/2DM) @ circa 4 PAs
2. Define infrastructure/pathway	NRAP Project Manager B8c - 1 WTE
3. Develop roll-out plan	NRAP Programme Administrator B3 - 1 WTE
4. Prepare business case	Legal fees for contracts x 21hrs
5. Issue of provider contracts	Travel (4 people face-to-face x 2)
6. Risk assessment	Subsistence
	Room hire
	General consumables
	TOTAL YEAR 1 COSTS - QTR 1:

PROGRAMME DEVELOPMENT: YEAR 1 - QTR 2	
Objectives	**Resources**
1. Agree and develop governance structure	Programme Leads (T1/2DM) @ circa 4PAs
2. Develop SOPs	NRAP Project Manager B8c - 1 WTE
3. Develop and test pilot phase	NRAP Programme Administrator B3 - 1 WTE
4. Extract data	Senior Statistician G8 @ 0.5 WTE
5. Evaluate data	Associate Statistician G7 @ 1 WTE
6. Marketing and communications campaign	IT Developer - G7 @ 1 WTE
	Database licence fee @ 1,000/month
	Software
	Travel (4 people face-to-face x2)
	Subsistence
	Room hire
	Marketing and advertising materials
	General consumables
	TOTAL YEAR 1 COSTS - QTR 2:

PROGRAMME ROLL-OUT: YEAR 1 QTRS 3/4	
Objectives	**Resources**
1. Agree and develop governance structure	Programme Leads (T1/2DM) @ circa 4 PAs
2. Develop SOPs	NRAP Project Manager B8c - 1 WTE
3. Develop and test pilot phase	NRAP Programme Administrator B3 - 1 WTE
4. Extract data	National Panel Members (3) face-to-face meeting x1
5. Evaluate data	Senior Statistician G8 @ 1 WTE
6. Marketing and communications campaign	Associate Statistician G7 @ 1 WTE
	IT Developer - G7 @ 1 WTE
	Technical Assistant Coordinator B5 @ 2 WTE
	Educator QA Assessor B8b @ 0.5 WTE
	Curriculum Review Expert B8b @ 0.5 WTE
	Database licence fee @ 1,000/wk
	Travel (7 people face-to-face x 1)
	Subsistence
	Room hire
	Marketing and advertising materials
	General consumables
	TOTAL YEAR 1 COSTS - QTRS 3/4:

PROGRAMME MAINTENANCE: YEAR 2	
Objectives	**Resources**
	Programme Leads (T1/2DM) @ circa 4 PAs
	NRAP Project Manager B8c - 1 WTE
	NRAP Programme Administrator B3 - 1 WTE
	National Panel Members (3) face-to-face meeting x 2
	Senior Statistician G8 @ 1 WTE
	Associate Statistician G7 @ 1 WTE
	IT Developer - G7 @ 1 WTE
	Technical Assistant Coordinator B5 @ 2.5 WTE
	Educator QA Assessor B8b @ 1 WTE
	Curriculum Review Expert B8b @ 0.4 WTE
	Database licence fee @ 1,000/wk
	Software/Database maintenance
	Travel (7 people face-to-face once a month)
	Subsistence
	Room hire
	Marketing and advertising materials
	General consumables
	TOTAL YEAR 2:

	TOTAL COSTS YEAR 1:
	TOTAL COSTS YEAR 2:

ACKNOWLEDGEMENTS AND CONTRIBUTORS

AMERICAN DIABETES ASSOCIATION

Jo Ellen Condon
Managing Director Education Recognition Program

AMERICAN ASSOCIATION OF DIABETES EDUCATORS

Jodi Lavin-Tompkins
Director of Accreditation

CENTERS FOR DISEASE CONTROL AND PREVENTION

Anne Albright
Director, Division of Diabetes Translation

Edward Gregg
Chief, Epidemiology and
Statistics Branch

Patricia Shea
Public Health Advisor

Patricia Schumacher
Lead for State Consultation

Stephanie Gruss
Diabetes Prevention Recognition Program Manager

Elizabeth Ely
Statistician

DAFNE

Gillian Thompson
National Director

Helen Hopkinson
Consultant Physician and DAFNE Clinical Lead

Simon Heller
Professor of Clinical Diabetes

Stephanie Amiel
Professor of Diabetic Medicine

DESMOND

Bernie Stribling
DESMOND Director

Melanie Davies
Professor of Diabetes Medicine

Kamlesh Khunti
Professor of General Practice

Sally Schreder
Lead for Complex Intervention Development

X-PERT HEALTH

Trudi Deakin
Chief Executive and Consultant Research Dietitian

Sean Wheatley
Research and Trainer in Public Health

REFERENCES

1. Khunti K, Chatterjee S, Carey M, Daly H, Batista-Ferrer H, Davies MJ. New drug treatments versus structured education programmes for type 2 diabetes: comparing cost-effectiveness. *Lancet Diabetes Endocrinol*. 2016; 4(7): 557-9.
2. NICE. March 2011. *Diabetes in adults quality standards.* [Online] Available from: www.nice.org.uk/guidance/qualitystandards/diabetesinadults/diabetesinadultsqualitystandard.jsp. [Accessed 17 August 2017]
3. Centers for Disease Control and Prevention. 2017. *Diabetes Prevention Recognition Program: Standards and Operating Procedures*. [Online] Available from: https://www.cdc.gov/diabetes/prevention/pdf/dprp-standards.pdf [Accessed 17 August 2017]
4. Department of Health, Diabetes UK (2005) Structured Patient Education in Diabetes, Department of Health, London.

FURTHER READING

American Diabetes Association Chronicle Diabetes. 2016. *Annual Benchmarks for 2016.* [Online] Available from: https://admin.chroniclediabetes.com/reports/standard.php?report_id=22&year=2016 [Accessed 1 May 2017]

Haas L, Maryniuk M, Beck J, Cox CE, Duker P, Edwards L *et al.* National standards for diabetes self-management education and support. *Diabetes Care*. 2012; 35(11): 2393-401.

American Diabetes Association. 2016. *Audit Toolkit.* [Onliine] Available from: https://professional.diabetes.org/sites/professional.diabetes.org/files/media/erp-audit-prep-toolkit.pdf [Accessed 17 August 2017]