









## Statement on Role Substitution of Registered Healthcare Professionals in Diabetes

Diabetes is a speciality which prides itself on multi-professional working, namely Diabetes Specialist Nurses (DSNs) and Midwives (DSMs), General Practice Nurses (GPNs), Doctors, Diabetes Specialist Dietitians, Podiatrists, Clinical Psychologists and Clinical Pharmacists. These professions each play a critical role in the management of diabetes, offering highly specialised knowledge alongside personalised support that significantly enhances outcomes for people living with diabetes.

As examples, these clinicians provide essential skills in diabetes care as their role extends beyond routine care to include complex insulin and glucose management, cardio-renal-metabolic risk reduction, admissions avoidance, handling acute emergencies, and integrating the latest clinical guidelines. They create individualised care plans in conjunction with people living with diabetes, helping them to develop self-management skills and preventing serious complications. They act as crucial links between people living with diabetes and the broader healthcare team, ensuring continuity of care. They foster a supportive experience for the person with diabetes, leading to better health and well-being.

The ability of many members of the current multidisciplinary team (MDT) to prescribe is important and without professional regulation this is not something that can currently be changed for other groups.

The NHS Long-Term Workforce Plan, published in 2023, looks at different ways of working with increasing number of other staff such as Physician Associates (PA), who have yet to have nationally defined scope or regulation or prescribing rights, thereby lacking the skill or expertise detailed above.

There is a strong body of research to demonstrate that the current MDT composition improves clinical outcomes. They are highly trained, starting as registered professionals and gaining substantial experience and additional post-graduate qualifications in diabetes management. They engage in continuous professional development, teach and engage in educational events, and participate in research to stay current with advancements in diabetes care.

Their combined skills in leadership, education, counselling, research and prescribing practices are vital for creating comprehensive care plans and overcoming barriers to healthcare. They often hold senior leadership roles, set standards for diabetes care, and contribute to research and policy advocacy. Their involvement in quality improvement initiatives ensures the delivery of high-quality, evidence-based care.

Whilst training and qualifications are important, it is also the primary years of practice at the bedside, in the home and our communities and clinics that allows the development of a unique perspective to those in other health care professions. It is this diversity of care delivery experience in an MDT that not only support direct care of the person with diabetes but a fundamental understanding of the wider system and how services work within it.

In summary, the specialised expertise, continuity of care, and person-centred approach of the Diabetes MDT is a key part of diabetes management and core to present outcomes comparing the NHS favourably to other countries.

We ask that roles for PAs and Nursing Associates as additional members of the MDT are agreed at national level via defined competency framework; they should never be used to substitute for existing members of the MDT.

Substitution could lead to gaps in care and subsequently increased waiting lists, a detrimental effect on physical and mental health outcomes for people living with diabetes, and increased healthcare costs, compromising the quality of diabetes care in the UK. Any new role must be additive based on defined parameters of contribution to existing MDTs in diabetes care.

















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# The Role of the Diabetes Specialist Nurse (DSN)

This document refers to nurses working as diabetes specialist nurses (DSNs) and midwives (DSMs). DSNs work in different environments including primary care, secondary care, community/intermediate care or a mixture of environments. DSNs work with children/young people or adults, or both. DSNs may be a band 6, 7 or 8, which may be based on economic factors and not reflect skills and experience.

The combination of these components ensure that registered nurses are well-equipped to provide high-quality, evidencebased, cost-effective care to individuals with diabetes, significantly improving outcomes and quality of life<sup>1</sup>.

Registered Nursing Qualification	Registered nurses (RNs) are required to complete a 3-year BSc level nursing degree which provides a registered nurse qualification within the Nursing and Midwifery Council (NMC). This includes the requirement to provide evidence 3 yearly to support revalidation in order to remain on the NMC register, ensuring the maintenance of high nursing and midwifery standards of practice.
Autonomous Clinical Practice	Substantial clinical experience in acute and community diabetes care settings, often with 10 years plus experience as a RN. This facilitates the desired experience in the complexities of diabetes management in various diabetes populations to include the prevention and management of related long-term conditions in a changing world. DSNs can comprehensively assess, diagnose and develop complex clinical management plans to include prescribing therapies.
Postgraduate Education	Postgraduate certifications / diabetes qualification varying from diploma to MSc level degrees.
Ongoing Professional Development	Engaging in continuous professional development including national conferences, study sessions and webinars, ensuring contemporaneous and optimal diabetes care delivery. DSNs are subjected to formal competency-based assessments as detailed in the Integrated Career and Competency Framework for Diabetes Nursing <sup>2</sup> , linked into the NMC revalidation process.
Education and Teaching	Actively involved in setting in standards ensuring that evidence-based practices are implemented. They have a recognised teaching certificate, performing roles at higher educational institutions. They provide local and regional education to develop the skills of other HCPs.
Multidisciplinary Knowledge	Possess an in-depth understanding of wider long-term conditions and processes such as cardiology, nephrology, psychology, hepatology, endocrinology, pharmacology, safeguarding, nutrition, and lifestyle modification.
Independent Prescribing	Up to 50% of DSNs are registered as Independent Prescribers and have undertaken advanced level education and certification. This allows them to legally prescribe and titrate medications to include insulin and diabetes technology devices.
Leadership	This includes leadership roles within healthcare teams in wider national networks and committees.
Research, Audit and Quality Improvement	Research to advance the field of diabetes care is essential with DSNs regularly involved in clinical trials design and delivery, and contributing to academic publications. Such research identifies areas for improvement, so changes can be implemented to enhance quality and safety of diabetes care.
Policy and Advocacy	May work with professional organisations, health authorities, charities and other advocacy groups to influence healthcare policy at local, regional and national levels.
Co-ordination of Care	Co-ordinate care across different healthcare settings, ensuring that people living with diabetes receive consistent and comprehensive care.
Mentorship	Mentor and clinical supervision for student nurses, junior nurses and other HCPs providing guidance, support, and opportunities for professional growth.

<sup>1.</sup> Lawler, J., Trevatt, P., Elliot, C. and Leary, A., 2019. Does the Diabetes Specialist Nursing workforce impact the experiences and outcomes of people with diabetes? A hermeneutic review of the evidence. Human resources for health, 17, pp.1-9.

<sup>2.</sup> Diabetes UK. Diabetes Specialist Nurses : position statement <u>www.diabetes.org.uk</u>

<sup>3.</sup> TREND Diabetes. 2022. For Healthcare Professionals: An Integrated Career and Competency Framework For Adult Diabetes Nursing. 6<sup>th</sup> Edition www.trenddiabetes.online

Akiboye, Fet al., 2021 Impact of diabetes specialist nurses on inpatient care: A systematic review. Diabet Med, 38: e14573. <u>https://doi.org/10.1111/dme.14573</u>







# The Role of the General Practice Nurse (GPN) and Advanced Nurse Practitioners (ANPs)

This document refers to General Practice Nurses (GPNs) and Advanced Nurse Practitioners (ANPs) working in diabetes care. P/Ns and ANPs make up a third of the primary care workforce and are highly skilled professionals, educated to a high level carrying out a wide range of specialist roles, to include holistic diabetes care within their practices and beyond".<sup>1</sup>

GPNs are registered nurses, the majority with extensive postgraduate education to include ANP education at master's level. The combination of enhanced qualifications, a defined scope of practice and experience ensures the provision of high-quality, evidence-based, cost-effective diabetes care.

Registered Nursing Qualification	Registered nurses (RNs) are required to complete a rigorous 3-year BSc level degree in nursing which then provides a Registered Nurse Qualification with the Nursing and Midwifery Council. This includes the need for evidence to support revalidation every 3 years to remain on the NMC register, thus ensuring the maintenance of high nursing and midwifery standards of practice.
Autonomous Clinical Practice	Substantial clinical experience often initially in acute and then community/primary care settings. This facilitates desired experience for holistic diabetes care which is usually in conjunction with the prevention and management of other long-term conditions to include cardio-renal, metabolic and vascular risk reduction, assessment and delivery of care. GPNs and ANPs can comprehensively assess, diagnose and develop diabetes management plans to include prescribing therapies where the GPN or ANP has a prescribing qualification.
Postgraduate Education	Postgraduate certifications / diabetes qualifications varying from diploma to advanced master's level degrees.
Ongoing Professional Development	GPNs and ANPs engage in continuous professional development to ensure contemporaneous and optimal diabetes care delivery. They work to a formal competency-based assessment as detailed in the 'Primary Care and General Practice Nursing Career and Core Capabilities Framework' <sup>2</sup> , linked into the NMC revalidation process.
Education & teaching	GPNs and ANPs may have a recognised teaching certificate and facilitate educational opportunities for other members of the primary care team and wider community.
Multidisciplinary Knowledge	Possess an in-depth understanding of other long-term conditions and processes such as cardiology, nephrology, psychology, hepatology, pharmacology, safeguarding, nutrition, and lifestyle modification.
Independent Prescribing	Many GPNs and all ANPs will be registered as Independent Prescribers. Therefore, have undertaken advanced level education and certification to be registered under the NMC to legally prescribe and titrate medications to include insulin.
Leadership and Advocacy	This includes leadership roles within healthcare teams and in wider regional and national networks and committees. GPNs and ANPs are actively involved in setting in care standards and ensuring that evidence-based practices are implemented.
Research, Audit and Quality Improvement	Research to advance the field of diabetes care is essential and real-world data is becoming increasingly relevant. Primary care nurses are regularly involved in clinical studies and contributing to academic publications. Such research identifies areas for improvement, so that changes can be implemented to enhance the quality and safety of diabetes care.
Policy and Advocacy	Work alongside other members of the MDT and commissioners to influence healthcare policy at local, regional, and national levels.
Coordination of Care	Co-ordinate care across GP practice and community settings to ensure that people with diabetes receive consistent, evidence based optimal care <sup>3</sup> .
Mentorship	Mentor junior nurses and other healthcare professionals providing guidance, support, and opportunities for professional growth.

Clifford, J., Barnes, K., Arora, R., and Raouf, S. (2021). London: Sonnet. Available at: <u>https://sonnetimpact.co.uk/wp-content/uploads/2021/03/Sonnet-Articulating-the-role-and-value-of-nurses-in-general-practice-Interim-report-22-March-2021.pdf</u>
Health Education England (2021) Primary Care and General Practice Nursing Career and Core Capabilities Framework. Available at:

https://www.skillsforhealth.org.uk/wp-content/uploads/2022/05/Primary-Care-and-GPN-Framework-May22.pdf

3. Ali SN, Alicea S, Avery L et al (2021) Best Practice in the Delivery of Diabetes Care in the Primary Care Network. Available at: https://bit.ly/3FMJb5V







## The Role of the Diabetes Consultant Nurse

Diabetes Nurse Consultants are highly experienced nurses. The Nurse Consultant role encompasses 4 elements, Advanced clinical practice, leadership, education, and research/audit. Independent prescribing is a key component of the role. Many Nurse Consultants will also manage teams and have budgetary responsibilities. The role was designed and ratified by the Department of Health in 2020.

The combination of these components ensure that registered nurses are well-equipped to provide high-quality, evidence-based, cost-effective care to individuals with diabetes, significantly improving outcomes and quality of life<sup>1</sup>.

Registered Nursing Qualification	Registered nurses (RNs) are required to complete a 3-year nursing degree which provides a registered nurse qualification within the Nursing and Midwifery Council (NMC). This includes the requirement to provide evidence 3 yearly to support revalidation to remain on the NMC register, ensuring the maintenance of high nursing and midwifery standards of practice.
Autonomous Clinical Practice	Substantial clinical experience in acute and community diabetes care settings, often with 10 years plus experience as a RN. This facilitates the desired experience in the complexities of diabetes management in various diabetes populations to include the prevention and management of related long-term conditions in a changing world. Consultant Nurses can work autonomously to comprehensively assess, diagnose and develop complex clinical management plans to include prescribing therapies. They work at an advanced level of clinical practice (50% of the role).
Postgraduate Education	Postgraduate MSc/PHD qualifications <sup>7</sup>
Ongoing Professional Development	Engaging in continuous professional development including national conferences, study sessions and webinars, ensuring contemporaneous and optimal diabetes care delivery. Consultant Nurses are subjected to formal competency-based assessments as detailed in the Integrated Career and Competency Framework for Diabetes Nursing <sup>3</sup> , linked into the NMC revalidation process and subject to the NHS England Consultant level practice capability framework.
Education and Teaching	They have a recognised teaching certificate, performing roles at higher educational institutions, influencing curriculums and broader approaches to competencies and capabilities regionally and nationally. Consultant Nurses develop staff potential and promote excellence and are actively involved in setting in standards ensuring that evidence-based practices are implemented. They provide local and regional education to develop the skills of other HCPs.
Multidisciplinary Knowledge	Possess an in-depth understanding of wider long-term conditions and processes such as cardiology, nephrology, psychology, hepatology, endocrinology, pharmacology, safeguarding, nutrition, and lifestyle modification <sup>3</sup> .
Independent Prescribing	Should be registered as Independent Prescribers and have undertaken advanced level education and certification. This allows them to legally prescribe and titrate medications to include insulin and diabetes technology devices.
Leadership	This includes leadership roles within healthcare teams for service development, collaborations with NHS trusts and ICB to influence on service provision and in wider national networks and committees.
Consultancy	Consultant Nurses will provide a level of activity linked to direct clinical care, supporting professional activities, providing additional NHS responsibilities and externally funded duties
Research, Audit and Quality Improvement	Research, audit and quality improvement responsibilities go beyond using and enabling evidence-based practice. Continual evaluation and improving practice, supervise research, potentially lead or work within research and innovation programmes to contribute to the knowledge base.
Policy and Advocacy	Majority will work with professional organisations, health authorities, charities and other advocacy groups to influence healthcare policy at local, regional and national levels.
Co-ordination of Care	Co-ordinate care across different healthcare settings, ensuring that people living with diabetes receive consistent and comprehensive care.
Mentorship	Mentor and clinical supervision for student nurses, junior nurses and other HCPs providing guidance, support, and opportunities for professional growth.

1. Lawler, J., Trevatt, P., Elliot, C. and Leary, A., 2019. Does the Diabetes Specialist Nursing workforce impact the experiences and outcomes of people with diabetes? A hermeneutic review of the evidence. Human resources for health, 17, pp.1-9.

2. Diabetes UK ., Diabetes Specialist Nurses : position statement www.diabetes.org.uk

TREND Diabetes. 2022. For Healthcare Professionals: An Integrated Career and Competency Framework For Adult Diabetes Nursing. 6th Edition 3. www.trenddiabetes.online

4 Akiboye, Fet al., 2021 Impact of diabetes specialist nurses on inpatient care: A systematic review. Diabet Med, 38: e14573. https://doi.org/10.1111/dme.14573

5. https://www.pcdsociety.org/resources/details/nurse-consultants-does-every-service-need-one

Department of Health (1999) Making a Difference: Strengthening the Nursing, Midwifery and Health Visiting Contribution to Health and Healthcare DoH, 6. London

7. United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1999) A Higher Level of Practice: Report of the Consultation on the UKCC's Proposals for a Revised Regulatory Framework for Post Registration Clinical Practice UKCC, London



## **Pharmacists working as Diabetes Specialists**

Pharmacists specialising in diabetes care will work in different environments including primary care, secondary care, community/intermediate care or a mixture of environments. Pharmacists work with children/young people or adults, or both. Pharmacists specialising in diabetes may be a band 7, 8 or 9 which may be based on economic factors and not reflect skills/experience.

Within all sectors the role of a pharmacist in diabetes care is likely to encompass horizon scanning, supply management, safety and guideline development. Training, upskilling colleagues and offering multimorbidity management are other areas pharmacists in diabetes care have supported across healthcare systems<sup>1</sup>. Pharmacists are key to avoiding clinical inertia, closer monitoring and review of medications and support for staff with medication safety. Pharmacists lend support to management of the quality and outcomes frameworks, care processes and enhanced services. They also support public health campaigns aligned with diabetes<sup>2</sup>.

Pharmacist Qualification	Pharmacists are required to complete a rigorous 4-year Master of Pharmacy (MPharm) followed by completion of a one year in practice foundation course before sitting a registration exam. Passing the exam following the 5 years training provides registration as a pharmacist with the General Pharmaceutical Council (GPhC). This includes the need for evidence to support revalidation every year to remain on the GPhC pharmacist register, thus ensuring the maintenance of high pharmacist standards of practice.
Autonomous Clinical Practice	Substantial clinical experience in secondary and/or primary care settings, often with 5yrs plus experience as a pharmacist. This facilitates the desired experience in the complexities of diabetes management in various diabetes populations to include the prevention and management of related comorbidities in a changing world. Pharmacists will be able to comprehensively assess, diagnose and develop complex clinical management plans to include prescribing therapies.
Post Graduate Education	Postgraduate certifications / diabetes qualification varying from diploma's to advanced master's level degrees focusing specifically on diabetes or clinical pharmacy.
Ongoing Professional Development	Over the past few years, the Royal Pharmaceutical Society (RPS) has made it possible for pharmacists to develop their careers in a structured way. The RPS core advanced curriculum describes the entry-level standard for advanced pharmacists working in any patient focussed role. It bridges the gap between the RPS post-registration foundation curriculum and the RPS consultant pharmacist curriculum. It provides a credentialing assessment to assure pharmacists have the capabilities to practise at an advanced level. The curriculum outcomes are aligned to multi-professional advanced frameworks whilst articulating the pharmaceutical knowledge and skills required specifically of advanced pharmacists and can be used alongside the Integrated Career and Competency Framework for pharmacists in Diabetes <sup>3</sup> . Pharmacists also can credential as a consultant pharmacist with the RPS, by providing a portfolio of evidence to show they meet the strict criteria needed. The NHS guidance document defines a consultant pharmacist as a pharmacist who has developed and demonstrated high level expertise in their area of practice and across the four pillars, namely clinical practice, leadership, education and research. Consultant pharmacists are clinical experts who work at a senior level, delivering care and driving change across the healthcare system. They've demonstrated the level of competence expected of a consultant pharmacist and their post has been reviewed and approved.



## **Pharmacists working as Diabetes Specialists**

Education and Teaching	Pharmacists are often involved in teaching and perform roles at higher educational institutions, regional and local levels. Educating and developing the skills of other healthcare professionals. This is reflected in the pillars required for both advanced and consultant pharmacist portfolios.	
Multidisciplinary Knowledge	Possess an in-depth understanding of wider comorbidities and processes such as cardiology, nephrology, psychology, hepatology, obstetric care, endocrinology, pharmacology, safeguarding, nutrition, and lifestyle modification.	
Non-Medical Prescribers	Pharmacist's will now leave university with a non-medical prescriber qualification, with additional training during their foundation year to allow them to become non-medical prescribers as soon as they are registered. Many pharmacists are already registered as Independent Prescribers having undertaken advanced level education and certification. This allows them to be registered under the GPhC to legally prescribe and titrate medication and diabetes technology devices.	
Leadership and Advocacy	eadership and This includes leadership roles within healthcare teams in wider national platforms/committee Pharmacists are actively involved in setting in standards and ensuring that evidence-based practic are implemented. Pharmacists play a large role in guideline development looking at evidence based practic	
Research and Development, Audit and Quality Improvement	Research to advance the field of diabetes care is essential with pharmacists involved in clinical studies, participation in trials, and contributing to or writing academic publications. Such research identifies areas for improvement, so that changes can be implemented to enhance the quality and safety of diabetes care.	
Policy and Advocacy	Pharmacists may work with professional organisations, health authorities, charities and other advocacy groups to influence healthcare policy at local, regional and national levels.	
Coordination of Care	Coordinate care across different healthcare settings, ensuring that patients receive consistent and comprehensive care.	
Mentorship	Mentor junior pharmacists and other healthcare professionals providing guidance, support, and opportunities for professional growth.	

<sup>1.</sup> Davies C. The role of specialist pharmacists in diabetes care. Journal of Prescribing Practice. 2024;6:4.158. https://doi.org/10.12968/jprp.2024.6.4.158

Ali S, Alicea S, Avery L, Beba H, Kunumilli N, Milne N. 2021. Best Practice in the Delivery of Diabetes Care in the Primary care Network. (Online) Available from<u>Diabetes-in-the-Primary-Care-Network-Structure-April-2021\_with-logos.pdf (diabetes-resources-production.s3.eu-west-1.amazonaws.com)</u> (accessed 02/07/2024).

UK Clinical Pharmacy Association. 2018. An Integrated Career and Competency Framework for Pharmacists in Diabetes. https://www.diabetes.org.uk/for-professionals/get-involved/news-and-updates/integrated-career-framework (accessed 02/07/2024).



## The Role of the Diabetes Specialist Dietitian (DSD)

Diabetes Specialist Dietitians (DSDs) are HCPC regulated healthcare professionals who are uniquely qualified to translate the science of nutrition into practical advice on food, medicine, and lifestyle. They are the only legally registered healthcare professional with an advanced skill set that provides individualised dietary education and support for people with diabetes and their families and carers.

**Roles**: The role of a DSD spans outpatient, inpatient, homecare, and community settings (including schools and prisons) across primary and secondary care. They also work in education and research, charitable organisations, and freelance practices. Some DSDs work as First Contact Dietitians or Primary Care Network dietitians<sup>1</sup>. As DSDs become more senior, they may hold Advanced Clinical Practitioner, Clinical Lead, or Consultant Dietitian roles at a national level<sup>2</sup>. As a result, their NHS pay scale ranges from bands 6–8d.

**Training and Qualifications**: DSDs usually complete a BSc (Hons) degree or equivalent in Dietetics including 1000 hours of practical experience, and they are required to maintain a portfolio of continuing professional development (CPD), which includes specialist training, e.g. in diabetes technologies, or non-medical prescribing accreditation. Many pursue advanced qualifications, including Master's and Doctoral degrees.

**Evidence**: Food and diet advice given to people with diabetes is most effective if provided by a dietitian<sup>3</sup>. Dietetic interventions are shown to improve clinical outcomes for people with diabetes, including significant reductions in HbA1c, as well as being cost-effective, resulting in fewer visits to healthcare providers and reduced dependency on diabetes medications <sup>4-9</sup>.

**Workforce**: The number of DSDs has not changed significantly despite a substantial growth in the diabetes population. Inequality in commissioning of dietetic services and level of specialism across Trusts, ICBs and Health Boards exists, resulting in a strain on resources and lack of capacity. The BDA Diabetes Specialist Group have developed a competency framework and are developing DSD workforce standards<sup>10</sup>. National workforce standards for paediatric diabetes have been published<sup>11</sup>.

Table 1. Competency areas of a DSD		
Nutrition in Health and Disease	Support of people with Type 1 and Type 2 diabetes, diabetes in pregnancy, cystic fibrosis, eating disorders, gastrointestinal conditions, and enteral feeding. Analysis of nutritional intake to optimise nutritional status and prevent disease progression and development.	
Technology	Use of extensive knowledge of nutrition to educate on features of insulin pumps and continuous glucose monitors, along with nutrition related technology and information resources. Sensor interpretation to optimise glycaemic management.	
Carbohydrate counting and insulin dose adjustment	Support of individuals to self-manage their insulin according to their intake, activities and lifestyle, thereby optimising medicine use and reducing short- and long-term risks. Accommodation of glycaemic index (GI), fat and protein in meals to manage post-prandial glucose levels. DSDs with a Non-Medical Prescribing qualification can prescribe medicines.	
Diabetes Prevention and Type 2 Remission	Use of medically supervised diets/meal replacement programmes to achieve remission. Supporting remission as part of bariatric surgery.	
Education, advisory role and research	Provision of education to people with diabetes, and their families and caregivers, including structured group education (DAFNE, XPERT, BERTIE). Education of the multidisciplinary team, staff and students, social services, industry and charitable sector, GPs, ICBs, parliament, media and commercial. Lead or conduct primary research and develop evidence-based nutrition guidelines.	

- 1. What do First Contact Dietitians do? British Dietetic Association (BDA)
- 2. Advanced Practice British Dietetic Association (BDA)

- 9. <u>https://www.medscape.co.uk/viewarticle/leverage-benefits-first-contact-dietitians-diabetes-care-2024a1000b0h</u>
- 10. Diabetes dietetic competency framework: three years in the making British Dietetic Association (BDA)
- 11. WORKFORCE-STANDARDS-FOR-CHILDREN-AND-YOUNG-PEOPLE\_March2024.pdf (cvpdiabetesnetwork.nhs.uk)

<sup>3.</sup> Møller G et al. A systematic review and meta-analysis of nutrition therapy compared with dietary advice in patients with type 2 diabetes. Am J Clin Nutr 2017;106(6):1394-1400.

<sup>4.</sup> Kulkarni K et al. Nutrition practice guidelines for type 1 diabetes mellitus positively affect dietitian practices and patient outcomes. J Am Diet Assoc 1998; 98:62-70

<sup>5.</sup> Franz MJ et al. Evidence-based nutrition practice guidelines for diabetes and scope and standards of practice. J Am Diet Assoc 2008;108:S52-S58

Coppell KJ et al. Nutritional intervention in patients with type 2 diabetes who are hyperglycaemic despite optimised drug treatment – Lifestyle Over and Above Drugs in Diabetes (LOADD) study: randomised control trial. BMJ 2010; 341:c3337

<sup>7.</sup> Deakin TA et al. Structured patient education: the diabetes X-PERT Programme makes a difference. Diabet Med 2006; 23: 944-954

<sup>8.</sup> Pastors JG et al. The Evidence for the effectiveness of medical nutrition therapy in diabetes management. Diabetes Care 2002; 25(3): 608-13