An Integrated Career and Competency Framework for Pharmacists in Diabetes

Endorsed by









This framework has been supported and funded by UKCPA.

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First edition 2018

Foreword

The Royal Pharmaceutical Society commends the work of this group to develop a framework to support pharmacists managing patients with diabetes. We will continue to work with UKCPA to align to the wider Professional Curricula being developed to support the pharmacy workforce to deliver safe and effective care to patients in all care settings.

Paul Bennett CFO RPS

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Acknowledgements

Many thanks to all the members of the UK Clinical Pharmacy Association (UKCPA) Diabetes & Endocrinology Group who provided much advice and commentary on this first edition. In addition, many thanks to Debbie Hicks, Jill Hill and June James and the work of the TREND-UK committee (Training, Research and Education for Nurses in Diabetes), whose members allowed us to use their validated framework as a bASIs for pharmacists.

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Introduction

Diabetes is a common and complex condition affecting all aspects of the individual's life, with potentially costly and life-changing complications. Self-management skills are an essential part of diabetes care, which should be exercised in conjunction with the support of well-trained healthcare providers (HCPs) working within an integrated framework, at the centre of which is the person with diabetes.

Diabetes is a new area of speciality for pharmacist practice, however the profession has been involved in some aspects of the care of people with diabetes for many years. New specialist roles are being developed, as well as the skills and knowledge of pharmacists working in new sectors, such as general practitioner (GP) practice pharmacists. Pharmacists working at all levels in diabetes care can contribute to the process of commissioning and delivering the ideal diabetes service for their population. They can be at the forefront in delivering care, whether providing advice and supporting self-care in the community, performing the annual review and monitoring in a GP practice, or leading a multi-professional team to deliver a comprehensive number of services, including pump therapy, and inpatient and antenatal care.

To deliver care successfully, pharmacists need to be clear about what competencies are required to deliver high-quality diabetes care in a patient-facing role and demonstrate those competencies. Furthermore, experienced pharmacists should be able to assess need and be innovative, and to evaluate and demonstrate that they achieve desired health outcomes. This framework supports the commissioning of appropriate levels of pharmacists to deliver diabetes services and provides a clear definition of the pharmacist roles – and their expected competencies – within diabetes care.

There is no single recognised qualification for a diabetes specialist role. Every pharmacist must meet the nine key standards outlined by the General Pharmaceutical Council, which describe how safe and effective care is delivered. They are a statement of what people expect from pharmacy professionals, and reflect what pharmacy professionals have said they expect of themselves and their colleagues (GPhC, 2017).

Over the past few years, the Royal Pharmaceutical Society (RPS) has made it possible for pharmacists to develop their careers in a structured way (RPS, 2013; 2014). The Foundation Pharmacy Framework (FPF) and the Advanced Pharmacy Framework (APF) form useful structures to gather evidence that a candidate's knowledge of core competencies has advanced. They are also used as enabling frameworks to 'host' a range of professional curricula, which identify the key knowledge, skills, experience and behaviours needed in different scopes of practice. This specialist competence

framework sits alongside the FPF and APF to develop specific competences in the specialty of diabetes. We expect this competence framework to help develop a portfolio that demonstrates specialist skills and knowledge and therefore meets the needs of both our professional society and specialised individuals.

These are the four levels of competency outlined by the RPS:

Foundation (first 1000 days of practice): you know the basics and apply your knowledge to your patients.

Advanced Stage 1 (1000 days of practice): you are established in a role, performing well, and have advanced beyond your foundation practice years, or are at an early stage of specialisation and advancement beyond your early years of practice: you understand the theory and detail behind recommended practice and manage more complex situations as part of a multidisciplinary team.

Advanced Stage 2 (1000+ days of practice): you are an expert in an area of practice and are experienced; you routinely manage complex situations autonomously and are a recognised leader locally or regionally; you have a broad range of complex knowledge, lead changes in practice and provide expert advice in your speciality.

Mastery (>10 years of practice): you are a nationally or internationally recognised leader in an area of expertise, with a breadth of experience and complex knowledge; you are recognised as a leader and initiate changes at a national level.

This framework is designed to help predominantly with cluster 1 of the APF - expert professional practice, although some of the aspects would meet some aspects of other clusters. It is expected foundation level is the minimum achievement of any pharmacist working in diabetes regardless of sector. Advanced stage I, advanced stage II and mastery levels relate to time within the speciality. For example a specialist pharmacist in diabetes would be expected to be practicing at advanced level II or mastery level in the majority of this framework, as well as addressing the other clusters of the APF such as research and leadership. They would have been working 8-10 years post qualification, with at least 5-7 of those within the speciality.

Community pharmacists would be expected to map at foundation level for diabetes to provide safe patient care, with those with a specialist interest working towards advanced level I. Those who hold leadership roles in community, influencing the local and national agenda on patient care in diabetes would be expected to meet competences at higher levels such as advanced stage II and mastery.

Those working as a generalist in roles such as GP practice pharmacists or rotational secondary care posts would be expected to be working towards or at advanced I level for the majority of competences, with a few from advanced II depending on role and experience. This could be combined with knowledge and skills from other competence frameworks for long term conditions such as cardiology and respiratory to ensure all round competence in multiple long-term conditions.

Those who chose to specialise further and become recognised as advanced specialists, including those working in or towards consultant posts would be expected to map their competencies at a minimum of advanced stage II and working towards mastery level for the majority of competence clusters in both this specialist framework and the APF.

Revalidation for pharmacy professionals will begin in 2018. This process is designed to ensure they benefit from continuing professional development (CPD) and encourage reflection on learning and practice, with a focus on outcomes for people using pharmacy services. A portfolio based on competence assessment can contribute to your learning and development in line with these aims.

How to use this framework

The framework can be used in several ways to develop pharmacists' knowledge and skills. For example, it can provide:

- help for individual pharmacists to plan their professional development in diabetes care
- guidance for employers on the competency of pharmacists at the various levels of diabetes specialism
- a reference for planning educational programmes
- information for commissioners in identifying the appropriate level of staff required to meet the needs of the local population.

The clearly defined competency levels make it possible for pharmacists delivering diabetes care to identify their level of practice and develop a portfolio of practice. The framework enables them to plan their careers in a more structured way and supports their CPD by identifying individual development and training needs. There is opportunity for creativity and flexibility; it is not expected that all competencies will be met, even in highly specialised practice. Different sectors and individuals have different requirements and the framework allows each person to identify areas for their own practice.

There are different sections for those working in generalist or specialist settings: role-specific sections for people who need a general knowledge of diabetes but are working in a different specialty area, and more specialist sections for those pharmacists who are preparing for a career in diabetes care. Peers can compare, discuss and challenge practice as part of the learning experience.

When gathering evidence to prove competency, it is important that pharmacists:

- understand what each of the competencies is asking of them
- review any existing work that could demonstrate their competency
- identify whether the existing evidence is appropriate (e.g. if a pharmacist attends
 a study day to prepare to perform an intervention, but has not practised the skill
 in a clinical setting, the certificate of attendance is not evidence of competency
 and the pharmacist should consider making arrangements for supervised
 practice; however, if the pharmacist has undergone training, has evidence of
 supervised practice and frequently provides such care, the evidence should be
 sufficient to demonstrate competency)
- consider what may be needed in developing evidence of competency (e.g. soliciting feedback on practice)
- think about using evidence that covers several competencies (e.g. one case study may demonstrate the knowledge and skills commensurate with more than one competency).

Workplace and experiential learning

Pharmacists using this framework may come from a range of backgrounds, and although there are opportunities for formal education courses, it is essential such courses are embedded with experiential learning within your local health settings. This learning may include:

- consultations:
 - Healthier You reviews
 - medicine use reviews and new medicine service reviews
 - annual diabetes reviews
 - antenatal diabetes clinics
 - adolescent diabetes clinics
 - diabetes eve disease clinics
 - ▶ lipid management clinics
 - ▶ intensive insulin therapy (insulin pumps) clinics
 - diabetes foot clinics
- ward rounds and inpatient reviews
- residential and nursing home visits
- multidisciplinary team meetings and/or virtual clinics
- morbidity and mortality meetings
- structured education courses
- interaction with diabetes specialist nurses, podiatrists, dietitians
- interaction with consultant diabetologists and specialist trainees
- interactions with GPs including generalists and those with a special interest
- collaboration with clinical commissioning groups and sustainability and transformation partnerships (including governance, guidelines and commissioning)
- interaction with pharmacists providing diabetes services in a community pharmacy setting.

While developing a specialist interest in diabetes, pharmacists may have supervised responsibility for the care of people with diabetes, for example reviewing their clinical conditions, keeping notes, managing their care and following up any problems. The degree of responsibility they take may increase as competency increases. There should be appropriate levels of clinical supervision throughout any clinical

work, ensuring that close working relationships with medical, nursing and dietetic healthcare professionals are developed.

No pharmacist should be working in diabetes in isolation and support from colleagues and taking part in multi-disciplinary team working is key to developing specialty knowledge and skills, regardless of sector. Communication of change with other healthcare professionals and other sectors of healthcare using common communication systems will ensure safety of people with diabetes and ability to support those living with the condition. Cross-sector working will also enable development of new skills and networks, especially in areas that are usually treated by specialist teams, such as pregnancy or complex complications.

Pharmacists wishing to further their expertise and specialise in diabetes are encouraged to take part in local teaching, self-directed learning or formal study courses and conferences such as:

- weekly training sessions on diabetes
- case presentations
- journal clubs
- research and audit projects
- lectures and seminars
- pharmaceutical company education collaborations
- clinical skills demonstrations and teaching
- local pharmaceutical committees and pharmacy forum meetings.

Self-directed learning may include:

- reading journals and web-based material
- maintaining a personal portfolio
- developing enhanced communication and consultation skills
- participating in collaborative education
- learning by teaching students, pharmacists, other healthcare professionals and patient support groups.

These are some examples of formal study courses and conferences:

- the Diabetes UK Professional Conference
- the Diabetes Professional Care Conference
- UKCPA collaborative diabetes study days
- conferences or study days of the Primary Care Diabetes Society

- international meetings of the American Diabetes Association, European Association for the Study of Diabetes, International Diabetes Federation
- MSc in diabetes care
- management or leadership courses
- education courses.

Examples of application

A community pharmacist

A generalist pharmacist has a wide-ranging diabetes population. She decides to concentrate on delivering a new medicines service to people with diabetes so reviews the first section of the framework on general management. She reflects on her current practice and determines that it meets the criteria for Foundation or advanced stage I in most sections (screening, prevention and early diagnosis, promoting self-care, glucose and ketone monitoring, oral therapies, injectable therapies, hypoglycaemia), but realises that she has some gaps in her skills related to mental health and intercurrent illness. In her action plan, the pharmacist decides to focus on activities that will meet these competencies and to increase her skills in the competencies related to oral and injectable therapies. She decides to attend a local training course, and to discuss practice with and shadow a GP practice pharmacist to understand why different medications are stopped and started. She uses this knowledge in her new medicine service review and ensures that she invites a range of people with diabetes to attend a new medicine service review and a medicine use review where appropriate to discuss their medications. By offering these services the pharmacist demonstrates her skills at advanced stage I.

A GP practice pharmacist

A generalist pharmacist runs a clinic for people with diabetes. He sees a range of people with diabetes, who have various needs. He reviews sections 1 and 4 of the framework as these are most relevant to his role. He realises that he meets the criteria for most sections at advanced stage 1 but has gaps in his skills about diabetic nephropathy and governance, and that the specialist section on treatment of people with diabetes in care homes would also be relevant to his role. He organises a meeting with staff from the local care home to determine the current care of people with diabetes and discuss ways to help improve patient care. He sets up a monthly visit to enable both sides to discuss people with diabetes more formally and to identify people with diabetes who would benefit from a medication review. He undertakes these reviews as part of a multidisciplinary team and ensures that targets on blood pressure and lipids are met, thereby demonstrating the skills of an

advanced stage 1 practitioner in this competence set. The pharmacist decides to attend local GP training on diabetic nephropathy to improve his knowledge and links with the secondary care provider. He uses this new knowledge to order and interpret renal tests and to improve the review of inpatients post-discharge or to refer people with diabetes with complex needs to secondary care.

A specialist secondary care pharmacist or primary care diabetes specialist pharmacist

A generalist pharmacist has recently been promoted into a new role as a specialist pharmacist. She reviews sections 1, 2 and 4 of the framework, and decides that she is working at advanced stage I or II in most sections. Rather than trying to learn new skills she decides to consolidate her knowledge and start to improve her competence to an advanced stage II level. In her action plan she initially decides to focus on general management and to join the multidisciplinary team in outpatient clinics. She also attends a learning event on motivational interviewing and behaviour change to develop her skills as a prescriber. An opportunity occurs to allow the pharmacist to take on her own clinic reviewing patients with complex type 2 diabetes. This enables her to work autonomously and meet the skills required of an advance stage II practitioner.

Reflection and action plan

Reflection and action planning form a key part of developing specialist skills and knowledge. This document, *An Integrated Career and Competency Framework for Pharmacists in Diabetes*, is not about setting a series of task-oriented actions or practical activities for pharmacists to carry out, nor is it a list of items of factual knowledge that can be 'ticked-off'. Rather, it describes the progression of knowledge and skills across the four competency levels, and suggests how a pharmacist can build a career in diabetes care. It lists specific competencies for a suitably trained person to deliver diabetes care at particular levels and assumes general care is given competently.

The clinical setting is not defined, as it is assumed that pharmacists can provide diabetes care in all healthcare settings. The framework may be used to support a career pathway that encompasses experiential learning and competence development in single or multiple sectors, focusing on the individual pharmacist's needs and skills.

Attending relevant training from accredited providers is the first step for pharmacists in gaining knowledge and it is envisioned that they will then use this knowledge to develop the skills outlined in the competence framework.

An action plan can be found in Appendix 1. This is designed to enable pharmacists to reflect on their current practice, identify areas for development and formulate strategies to develop skills and competencies further. The appendix can be used to map individual competencies to a specific role and help to implement future changes. It is expected that this could contribute to the General Pharmaceutical Council revalidation requirements for registered pharmacists, for example as part of the reflective account or identifying planned CPD.

Competency statements

1 General management

These competencies apply to the general aspects of care that pharmacists should offer to all people with diabetes. It is expected that all pharmacists working in diabetes would be able to meet these competences at one level.

1.1 Screening, prevention and diagnosis of diabetes

To prevent and detect type 2 diabetes early you should be able to:

Foundation

- describe the differences between type 1 and 2 diabetes
- describe the risk factors for developing type 2 diabetes
- comprehensively assess an individual's risk of type 2 diabetes using a valid diabetes risk assessment tool
- explain to other health professionals the importance of prevention or delay of onset of type 2 diabetes in individuals at risk
- explain the role of exercise in the prevention or delay in progression to type 2 diabetes and maintenance of health in type 1 diabetes
- explain the importance of weight control and the role of diet in the prevention or delay in progression to type 2 diabetes and prevention of complications in type 1 and type 2 diabetes
- direct people to information and support to encourage lifestyle changes
- describe the symptoms of type 1 and type 2 diabetes
- outline the long-term health consequences of diabetes
- perform basic screening for diabetes associated complications such as foot disease.

Advanced Stage 1

As for the Foundation level, and:

- understand World Health Organization classifications of diabetes and the recommended treatments for each
- identify individuals at risk of type 2 diabetes (e.g. understand the long-term use of steroid and antipsychotic medication, previous gestational diabetes) and initiate screening and diagnostic tests
- advise people at risk of type 2 diabetes on lifestyle changes, including exercise programmes and dietary changes they can make to prevent type 2 diabetes
- participate in, and refer people to, programmes in conjunction with other agencies that address the role of lifestyle intervention in the prevention or delay in progression to type 2 diabetes
- educate other HCPs and care workers on the risks of developing type 2 diabetes
- discuss the care pathway for individuals with newly diagnosed type 1 and type 2 diabetes
- demonstrate knowledge of the available tests to diagnose type 1 and type 2 diabetes and understand the results
- interpret test results and, if diagnostic, refer accordingly
- describe the links between type 2 diabetes and other conditions (e.g. cardiovascular disease)

- understand local policy on vascular screening and diabetes prevention
- understand the need to refer people with newly diagnosed diabetes to a peerreviewed structured education programme
- audit personal practice in screening and diagnosis to identify areas of strength and improvement.

Advanced Stage 2

As for Advanced Stage 1 (AS1), and:

- identify and manage monogenic diabetes, type 3c diabetes and latent autoimmune diabetes in adults (LADA)
- provide expert advice on the benefits of screening programmes and procedures for high-risk groups to HCPs and care workers, those at risk of developing type 2 diabetes and commissioners
- participate in, and refer people to, screening programmes in conjunction with other agencies (e.g. care and residential homes) for the early detection of type 2 diabetes
- develop local guidelines and programmes of education and care for the screening, prevention and early detection of type 1 and type 2 diabetes
- demonstrate autonomy and manage referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for Advanced Stage 2 (AS2), and:

- autonomously elucidate a medical history, order and interpret tests to differentiate different types of diabetes
- identify other secondary and rare forms of diabetes, referring to other specialists as necessary
- work with stakeholders to develop and implement local guidelines for early identification and management of non-diabetic hyperglycaemia (NDH), promoting evidence-based practice and cost-effectiveness
- contribute to the evidence base and implement evidence-based practice for preventing type 2 diabetes
- contribute to the evidence base and implement evidence-based practice relating to type 2 diabetes screening in high-risk groups
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the numbers of people with NDH and outcomes of interventions, including contributing to national data collections and audits
- initiate and lead research in identifying and managing NDH through leadership and consultancy
- identify service shortfalls in screening for, and management of, people with NDH and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people at risk of developing type 2 diabetes
- lead on liaising with local and national public health networks and diabetes teams in developing NDH integrated care pathways or the National Diabetes Prevention Programme, including integrated IT measures and systems for NDH that record when individuals need multidisciplinary team care across service boundaries

- take part in multidisciplinary team care across service boundaries
- influence national policy on early identification and management of people at risk of developing type 2 diabetes
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.2 Promoting self-care

To support the person to self-care for their diabetes you should be able to:

Observe and report any concerns that might affect the ability of the person with diabetes to self-care observe and report any concerns that might affect the ability of the person with diabetes to self-care observe and report any concerns that might affect the ability of the person with diabetes to self-care observe and report any concerns that might affect the ability of the person with diabetes and refer any who have concerns about their medicines oencourage people to use their individualised and agreed care plans direct people to information and support to encourage them to make informed decisions about living with diabetes and managing life events (e.g. to join a peer-reviewed structured education programme) Advanced Stage 1 As for the foundation level, and: assess the person and any carer and provide tailored education and support to optimise self-care skills and promote informed decision-making about lifestyle choices provide information and support to encourage the person to make informed choices about controlling and monitoring their diabetes, including over choice of treatment and follow-up, risk reduction, monitoring and complications discuss medication concordance and address patient concerns about their medications, identifying ways to address them or adjusting therapy to meet the person's needs identify psychosocial barriers to self-care and refer on where necessary develop an individualised and agreed care plan audit personal practice in promotion of self-care to identify areas of strength and improvement. Advanced Stage 2 Advanced Advanced Advanced Advanced Advanced Active provide tailored educational philosophies underpinning behaviour change demonstrate knowledge and understanding of biophysical and psychosocial factors affecting self-management of long-term conditions demonstrate knowledge and skills to facilitate behaviour modification demonstrate knowledge and skills to overcome medication non-compliance and facilitate open d		
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		models of diabetes care that foster empowerment and lifelong learning about

	• provide education for other HCPs and care workers in diabetes self-care skills
	contribute to, and update, undergraduate and postgraduate training in diabetes for pharmacists and other HCPs
	demonstrate autonomy and management of referrals from other HCPs
	assess competencies of other HCPs.
Mastery	As for AS2, and:
	• identify service shortfalls and develop strategies with local commissioning bodies to address them
	initiate and lead research through leadership and consultancy
	work with stakeholders to develop and implement local guidelines, promoting evidence-based practice and cost-effectiveness
	collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs
	work with stakeholders to develop a culture of care and development
	• influence national policy on the promotion of self-care
	identify and implement systems to promote your contribution and demonstrate the impact of advanced level pharmacists to the healthcare team and the wider health and social care sector
	identify the need for change, proactively generate practice innovations, and lead new practice and service redesign measures to better meet the needs of people with diabetes and the service.

1.3 Mental health

To care for someone with diabetes and poor mental health you should be able to:

Foundation	understand how poor mental health, such as depression, anxiety and schizophrenia, affects people with diabetes
	• report any potential changes in the person's normal mental health (e.g. mood changes, changes in medication adherence, changes in appearance, anxiety) to a registered nurse or doctor
	raise the issue of current mental health or addiction problems sensitively during individual consultations
	• understand that some mental health medications can have a detrimental effect on glycaemic and lipid control
	help the person with diabetes and poor mental health to set goals and obtain treatment
	ensure people with diabetes and mental health problems understand the importance of how to take the diabetes medication, recognise common side-effects and know how to report them.
Advanced	As for the foundation level, and:
Stage 1	conduct a mental health assessment using a recognised depression tool
	assess the impact of diabetes on people with mental health problems and describe the potential impact of antipsychotic medication on the risk of developing type 2 diabetes and diabetes management
	demonstrate knowledge of the psychological impact of diabetes and facilitate referral to psychological support or mental health services, as required

- demonstrate a basic understanding of common mental health issues and how they and the medications used may affect diabetes control (e.g. anxiety and depression, schizophrenia, bipolar disorder, dementia, obsessive-compulsive disorder, and addiction and dependence)
- refer to or ensure a mental health practitioner is involved in the person's care if they are demonstrating poor mental health
- manage and coordinate individual patient care and education programmes
- support carers of those with mental health problems and ensure understanding of how to assist with diabetes management
- recognise the implications of poor mental health on lifestyle choices and encourage the person to make small, achievable changes
- if a registered non-medical prescriber, initiate or adjust existing diabetes medications as required in consultation with the multidisciplinary and specialist mental health teams
- audit personal practice in mental health to identify areas of strength and improvement.

Advanced Stage 2

As for AS1, and:

- provide support and expert advice to other HCPs on the management of diabetes in people with complex mental health problems
- collaborate with other non-diabetes HCPs, such as GPs and community psychiatric nurses, in planning diabetes care plans for people with diabetes and poor mental health
- understand in detail additional complex issues of poor mental health (e.g. supporting someone in the manic phase of their bipolar disorder; supporting someone with diabetes and an eating disorder; the association of drug misuse and the impact this has on the glycaemic control; the high prevalence of smoking in mental health sufferers and the impact this has on the risk factors of chronic heart disease)
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice and in consultation with specialist mental health teams
- demonstrate autonomy and manage referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for AS2, and:

- work with stakeholders to develop and implement local guidelines to manage diabetes in those with poor mental health, promoting evidence-based practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care for those with poor mental health, including contributing to national data collections and audits
- initiate and lead research in the management of diabetes in those with poor mental health through leadership and consultancy
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes with poor mental health, the diabetes population as a whole and the diabetes service

- lead on liaising with local and national mental health networks and diabetes and mental health teams in developing diabetes and mental health integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on diabetes and poor mental health
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.4 Nutrition

To meet the person's individual nutritional needs you should be able to:

	•
Foundation	• support an individual to follow their nutritional plan and report any related problems
	recognise the impact of cultural and lifestyle factors on dietary choices
	• recognise foods and drinks high in carbohydrate and refined sugar
	measure and record waist circumference, height and weight accurately
	 make sure the patient understands the importance of eating regular meals, and avoids long periods without food
	 find out and report if meals are not eaten or diet has significantly changed, especially if the patient is taking insulin or sulfonylureas
	 list the principles of a healthy, balanced diet, including low sugar, high fibre, low salt and low fat elements
	calculate and interpret a patient's body mass index to make sure it is healthy
	 understand which foods contain carbohydrate and how they affect blood glucose levels
	• identify people at risk of malnutrition and situations where healthy eating advice is inappropriate
	• refer the person with diabetes to a dietitian if required.
Advanced	As for the foundation level, and:
Stage 1	 work in partnership with the individual and/or group with diabetes to identify realistic and achievable dietary changes to help individuals to manage their glucose levels in the short and long term
	• know the dietary factors that affect blood pressure and lipid control
	 help the person with diabetes to make informed decisions about healthy nutritional choices
	 understand local policy on the care of people undergoing enteral feeding and understand the impact of different feeding regimens on blood glucose levels
	 perform an assessment of how lifestyle (diet and physical activity) and pharmacological agents affect glycaemic control
	• audit personal practice in nutrition to identify areas of strength and improvement.
Advanced	As for AS1, and:
Stage 2	• teach the person with diabetes and/or their carer the principles of carbohydrate counting and medication dose adjustment
	demonstrate knowledge and skills to facilitate behaviour change
	demonstrate knowledge of how to manage the needs of people with diabetes undergoing enteral feeding
	demonstrate autonomy and management of referrals from other HCPs
	• assess competencies of other HCPs.

Mastery

As for AS2, and:

- work with stakeholders to develop and implement local guidelines, promoting evidence-based practice and cost-effectiveness on appropriate nutrition advice
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes pharmacist contribution to nutrition care, including contributing to national data collections and audits
- initiate and lead research into the effectiveness of diabetes pharmacy on nutritional needs through leadership and consultancy
- identify service shortfalls in the provision of adequate diabetes nutrition and advice, and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations, and lead new practice and service redesign measures to better meet the needs of individuals with diabetes, the diabetes population as a whole and the diabetes service
- influence national policy on the contribution of pharmacy to providing highquality diabetes nutrition and advice
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.5 Glucose and ketone monitoring

To use and monitor glucose or ketone and associated equipment safely you should be able to:

Foundation

- recognise hypoglycaemia
- understand the normal range of glycaemia and report readings outside this range to the appropriate person
- identify situations where ketone testing is appropriate.

Advanced Stage 1

As for the foundation level, and:

- perform the tests according to manufacturers' instructions and local guidelines
- document and report the result according to local guidelines
- teach the testing procedures to the person with diabetes or their carer
- teach people with diabetes or their carer to interpret test results and take action
- interpret blood ketone results, assess other parameters and take timely action, e.g. refer where necessary
- ensure people with diabetes know the 'sick day rules'
- know when further diagnostic and surveillance tests, such as glycated haemoglobin (HbA1c) tests, estimated glomerular filtration rate (eGFR) tests, urea and electrolytes (U&E) tests or blood gases, are required
- instigate further tests such as HbA1c and eGFR
- use results to optimise treatment interventions according to evidence-based practice and local guidelines, and incorporate preferences of the person with diabetes
- if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team
- audit personal practice in monitoring to identify areas of strength and improvement.

Advanced
Auvanceu
Stage 2
Stage 2

As for AS1, and:

- develop specific guidelines for use in different situations
- identify which patients may be suitable for the differing diabetes technologies such as flash or continuous glucose monitoring
- initiate flash or continuous blood glucose monitoring if appropriate or available locally, and interpret the results
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for AS2, and:

- work with stakeholders to develop and implement local guidelines for monitoring glucose and ketone, promoting evidence-based practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures for use of monitoring, and produce information on the outcomes of diabetes care, including contributing to national data collections and audits
- identify service shortfalls in the provision of glucose and ketone monitoring and develop strategies with the local commissioning bodies to address them
- influence national policy on the use and availability of monitoring
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.6 Oral therapies

To use oral anti-hyperglycaemic medication safely you should be able to:

Foundation

- demonstrate you understand the progressive nature of type 2 diabetes and the need for treatment intensification over time
- demonstrate knowledge of the range of oral anti-hyperglycaemic agents currently available and their mode of action
- demonstrate knowledge of therapeutic doses and recommended timing of doses
- describe common side-effects of anti-hyperglycaemic agents
- demonstrate knowledge of how to detect and report adverse drug reactions
- assess suitability of drugs depending on the current eGFR level and specific contraindications
- assess and convey to the patient the risks and benefits of taking, or not taking, a medicine
- identify which oral anti-hyperglycaemic agents carry a higher risk of hypoglycaemia
- identify specific populations at higher risk of hypoglycaemia, e.g. frail elderly or those at end of life
- recognise the signs of hypoglycaemia and recommend treatment
- know when to refer to or seek guidance from a colleague.

Advanced Stage 1

As for the foundation level, and:

- demonstrate knowledge of which oral agents may be safely and effectively combined
- demonstrate an understanding of how the efficacy of various agents are most appropriately measured (e.g. through self-monitoring of blood glucose or by HbA1c)
- describe indications for the initiation of oral anti-hyperglycaemic agents
- demonstrate understanding of the various factors that impact on the pharmacodynamics and pharmacokinetics of anti-diabetes agents
- use knowledge of oral medication to identify ideal use in line with patient lifestyle and treatment goals (medicine use review)
- assess the impact of multiple pathologies, comorbidities, existing medications and contraindications on management options
- demonstrate awareness of issues related to polypharmacy and drug interactions (e.g. use of steroids)
- demonstrate understanding around the potential for adverse effects and how to avoid, minimise, recognise and manage them
- apply the principles of evidence-based practice including clinical and costeffectiveness
- demonstrate knowledge of, and work within, national and local guidelines, e.g. from the National Institute for Health and Care Excellence (NICE)
- evaluate treatment outcomes in a timely and appropriate fashion, making changes as required
- if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team
- audit personal practice related to use of oral therapies to identify areas of strength and improvement.

Advanced Stage 2

As for AS1, and:

- explain the rationale behind and the potential risks and benefits of different therapies
- demonstrate awareness of the need to optimise or add in other glucose-lowering therapies, including insulin, in a timely manner
- facilitate and support structured evidence-based education relating to oral antihyperglycaemic agents for individuals or groups
- demonstrate awareness of current research in new oral therapies
- disseminate evidence-based information that informs practice
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- adjust oral treatment according to individual circumstances, following local policies or individual clinical management plans
- audit outcomes of care against accepted national and/or local standards
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for AS2, and:

- work with stakeholders to develop and implement local guidelines, promoting evidence-based practice and cost-effectiveness when providing oral antihyperglycaemic agents
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes pharmacist involvement in prescribing and using oral anti-hyperglycaemic agents, including contributing to national data collections and audits
- initiate and lead research in diabetes pharmacy and use of oral antihyperglycaemic agents through leadership and consultancy
- identify service shortfalls in provision and effective use of oral anti-hyperglycaemic agents and develop strategies with the local commissioning bodies to address them
- influence national policy on the use and provision of oral anti-hyperglycaemic agents
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.7 Injectable therapies

To administer and use injectable therapies safely you should be able to:

Foundation

- demonstrate an understanding of the labile nature of type 1 diabetes and the need for treatment adjustment over time
- describe circumstances in which insulin use might be initiated or altered and refer if necessary
- demonstrate a broad knowledge of different insulin types (action, use in regimens)
- demonstrate a broad knowledge of insulin and GLP-1 receptor agonists (e.g. drug type, action, side-effects) and administration devices used locallydemonstrate an understanding of concentrated and biosimilar insulin
- supply people with diabetes treated with insulin with a locally agreed insulin passport and/or safety information card
- understand common insulin and management errors
- identify correct reporting system for injectable therapy errors
- understand the European directive on prevention from sharp injuries in the hospital and healthcare sector.

Advanced Stage 1

As for the foundation level, and:

- demonstrate and teach the correct method of insulin or GLP-1 receptor agonist self-administration, including how to: choose the correct needle type and length for the individual, use a lifted skin fold appropriately, use the correct method for site rotation, store insulin, make single use of needles and dispose of safe sharps (according to local policy)
- examine injection procedure and injection sites to detect lipohypertrophy, and advise on how to find alternative injection sites
- provide evidence of insulin safety training
- demonstrate expert knowledge of concentrated and biosimilar insulin and support other HCPs in their use
- provide necessary education on when to begin injection therapy proficiently

- use knowledge of injectable medication to identify ideal use in line with patient lifestyle and treatment goals (medicine use review)
- if a registered non-medical prescriber, initiate or adjust existing medications as required
- in consultation with the multidisciplinary team assess individual patients' selfmanagement and ongoing educational needs and meet these needs or refer as required
- support and encourage self-management wherever required
- ensure local awareness of use of insulin passports and/or safety cards and ensure they are available for staff to supply to people with diabetes
- recognise when injection therapy needs to be adjusted or changed
- recognise the potential psychological impact of insulin or GLP-1 receptor agonist therapies and offer support to the person with diabetes or their carer
- recognise signs of needle fear or needle phobia and offer strategies to help manage it
- audit personal practice related to use of injectable therapies to identify areas of strength and improvement.

Advanced Stage 2

As for AS1, and:

- demonstrate a high level of competency of the knowledge of the safe administration of insulin or GLP-1 receptor agonists
- demonstrate expert knowledge of insulin and GLP-1 receptor agonist therapies and act as a resource for people with diabetes, their carer and HCPs
- develop or contribute to local or regional policies on using concentrated or biosimilar insulin
- where individually acceptable, deliver structured group education to people with diabetes, their carers and HCPs
- empower and support a person with diabetes to achieve an individualised level of self-management and an agreed glycaemic target
- maintain active knowledge of current practice and new developments
- establish local guidelines or policies according to local needs
- investigate all incidents and report to the relevant agencies, and develop an action plan to prevent recurrence
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- adjust insulin treatment according to age, diagnosis and individual circumstances as required, following local policies or individual clinical management plans
- review and advise on insulin pump therapy if trained and competent and in line with local and national policy
- develop and review local policies related to supplies of insulin passports or safety cards
- understand emerging research on injection technique and be competent to implement outcomes into daily practice
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for AS2, and:

- initiate insulin pump therapy as part of a multidisciplinary team, if trained and competent and in line with local and national policy
- work with stakeholders to develop and implement local or regional guidelines, promoting evidence-based practice and cost-effectiveness on using injectable therapies
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes pharmacist involvement in prescribing and using injectable therapies, including contributing to national data collections and audits
- initiate and lead research in diabetes prescribing and using injectable therapies through leadership and consultancy
- identify service shortfalls in the provision and effective use of injectable therapies and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes, the diabetes population as a whole and the diabetes service
- influence national policy on the use of injectable therapies for diabetes
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.8 Hypoglycaemia

To identify and treat hypoglycaemia you should be able to:

Foundation

- state the normal blood glucose range and describe the level at which it would be appropriate to treat as hypoglycaemia
- describe the signs and symptoms of hypoglycaemia, whether mild or severe
- recognise and recommend appropriate treatment for the different levels of hypoglycaemia
- know how to access and administer appropriate treatment for hypoglycaemia as per local guidelines
- reassure and comfort the person with diabetes or their carer
- ensure episodes of hypoglycaemia are followed up appropriately and according to local policies.

Advanced Stage 1

As for the foundation level, and:

- demonstrate competent use of blood glucose monitoring equipment to confirm hypoglycaemia
- identify people with diabetes at high risk of hypoglycaemia, and provide advice on adjustment of therapy accordingly
- recognise that some people may not demonstrate or recognise clear signs and symptoms of hypoglycaemia (e.g. older people, those with longer duration of diabetes and those who have experienced recurrent episodes of hypoglycaemia)

- describe the possible causes of hypoglycaemia and any factors that can increase risk (e.g. alcohol consumption, physical activity and poor injection sites)
- discuss hypoglycaemia (including hypoglycaemic unawareness and frequent hypoglycaemia) and its possible causes with the person with diabetes or their carer
- if using insulin therapy, check injection technique and injection sites according to recommended correct practice
- interpret blood glucose levels and HbA1c results within the context of the clinical presentation to identify unrecognised hypoglycaemia
- describe methods of hypoglycaemia avoidance and explain how they will be implemented to minimise future risk
- identify medications most likely to cause hypoglycaemia and explain how the risks may be minimised
- describe what should be done if hypoglycaemia is not resolved and blood glucose levels remain low
- advise on driving regulations and hypoglycaemia (according to current Driver and Vehicle Licensing Agency guidelines)
- ensure appropriate hypoglycaemia treatments are accessible to people with diabetes and in date
- understand appropriate and recommended blood glucose targets for type 1 and type 2 diabetes and in pregnancy
- recognise when tight glycaemic control is not recommended (e.g. for frail or older persons or those in end-of-life care)
- audit personal practice in hypoglycaemia to identify areas of strength and improvement.

Advanced Stage 2

As for AS1, and:

- work with people with diabetes to prevent recurrent hypoglycaemia
- participate in educating other HCPs and carers of people with diabetes in the identification, treatment and prevention of hypoglycaemia
- educate people with diabetes, their carers and HCPs on the impact that hypoglycaemia has on the individual (e.g. in relation to their occupation, safety to drive, as a barrier to intensification of treatment and psychological)
- provide expert advice on complex cases
- identify and teach strategies to prevent hypoglycaemia during and after exercise and in special circumstances (e.g., during Ramadan or periods of fasting)
- act as an expert resource for information on hypoglycaemia for other HCPs
- collaborate with Accident & Emergency (A&E) staff or the ambulance team to identify people with diabetes who frequently present with severe hypoglycaemia
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for AS2, and:

- demonstrate understanding of rare causes of hypoglycaemia, investigating for possible causes such as ectopic hormone production
- work with stakeholders to develop and implement local guidelines for the avoidance and management of hypoglycaemia, promoting evidence-based practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the incidence and outcomes of hypoglycaemia episodes, including contributing to national data collections and audits
- initiate and lead research in effectiveness of diabetes pharmacy and hypoglycaemia through leadership and consultancy
- identify service shortfalls in prevention and management of hypoglycaemia and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service
- redesign measures to better meet the needs of people with diabetes at risk of hypoglycaemia, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national emergency networks and diabetes teams
 in developing diabetes integrated care pathways, including integrated IT measures
 and systems for diabetes that record when individuals need multidisciplinary team
 care across service boundaries
- influence national policy on prevention and management of hypoglycaemia
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.9 Hyperglycaemia

To identify and treat hyperglycaemia you should be able to:

Foundation

- state the normal blood glucose range
- describe signs and symptoms of hyperglycaemia
- recognise that older people may be asymptomatic of hyperglycaemia
- correctly document results and report those out of the accepted range
- recognise the impact that glucocorticosteroids have on blood glucose levels and trends
- educate people with diabetes on drug interactions that can cause hyperglycaemia (e.g. steroids).

Advanced Stage 1

As for the foundation level, and:

- perform blood glucose, blood and urine ketone tests according to local guidelines
- recognise and recommend appropriate treatment for the different levels of hyperglycaemia, including those in type 1 and type 2 diabetes
- list possible causes of hyperglycaemia, including non-adherence with current medication and intercurrent illness
- make appropriate referral for advice

- support self-management where possible
- know how to manage hyperglycaemia and/or ketonuria to minimise the risk of progression to diabetic ketoacidosis (DKA) or hyperosmolar hyperglycaemic state (HHS) in accordance with national or local policies or individual clinical management plans
- audit personal practice in hyperglycaemia to identify areas of strength and improvement.

Advanced Stage 2

As for AS1, and:

- recognise appropriate glycaemic treatment targets for special patient groups (e.g. pregnant women, older people, those with significant comorbidities, the frail and those in end-of-life care)
- determine the possible cause of hyperglycaemia, such as unrecognised infection or metabolic / endocrine disturbance
- work in partnership with the person with diabetes or their carer to agree treatment goals
- participate in educating people with diabetes, their carers and other HCPs in the identification, treatment and prevention of hyperglycaemia
- provide expertise in developing management plans for people with complex hyperglycaemia
- liaise with A&E staff and ambulance teams to identify people frequently presenting with episodes of DKA or HHS
- act as a resource for information on hyperglycaemia for other HCPs
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for AS2, and:

- work with stakeholders to develop and implement local guidelines to prevent and manage hyperglycaemia, promoting evidence-based practice and costeffectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the incidence and outcomes of hyperglycaemia, including contributing to national data collections and audits
- initiate and lead research in the effectiveness of diabetes pharmacy in prevention and management of hyperglycaemia through leadership and consultancy
- identify service shortfalls in the prevention and management of hyperglycaemia and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes at risk of hyperglycaemia, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national emergency networks and diabetes teams
 in developing diabetes integrated care pathways, including integrated IT measures
 and systems for diabetes that record when individuals need multidisciplinary team
 care across service boundaries
- influence national policy on preventing and managing hyperglycaemia.

1.10 Intercurrent illness

To manage intercurrent illness you should be able to:

Foundation	• identify common signs of intercurrent illness
	understand the impact of intercurrent illness on glycaemic control
	document and report any clinical findings outside the expected ranges
	refer appropriately
	provide appropriate literature for the learning needs of people with diabetes, their carers and HCPs.
Advanced	As for the foundation level, and:
Stage 1	make a comprehensive assessment and patient history
	initiate appropriate preliminary investigations (e.g. blood glucose and ketone measurements)
	 recognise when to seek urgent medical advice and/or when to admit to hospital (e.g. if there is ketonuria in pregnancy, hyperglycaemia in children with diabetes, dehydration and vomiting)
	advise on people with diabetes continuing treatment for diabetes during intercurrent illness and provide written information ('sick-day rules')
	encourage self-management, e.g. self-injecting and self-monitoring, as soon as possible
	• ensure the person with diabetes is aware of when to seek medical advice
	• interpret test results and recommend appropriate action
	• support the person with diabetes or their carer in managing diabetes during intercurrent illness
	adjust individual clinical management plan with person with diabetes or their carer, within your scope of practice and competence
	advise on sick day diabetes management, including ketone testing, where appropriate, according to local policy, and provide written information
	educate people with diabetes, their carers and HCPs about sick day diabetes management
	recognise when treatment may need adjusting, according to local and national guidelines or policies
	• audit personal practice in management of intercurrent illness to identify areas of strength and improvement.
Advanced	As for AS1, and:
Stage 2	provide expert advice on complex cases and multiple pathologies
	initiate treatment adjustments according to individual circumstances, following local policies or individual clinical management plans
	contribute to the evidence base and implement evidence-based practice on managing intercurrent illness in people with diabetes
	educate other HCPs on the effects and consequences of intercurrent illness on people with diabetes
	participate in developing guidelines
	demonstrate autonomy and management of referrals from other HCPs
	• assess competencies of other HCPs.

Mastery

As for AS2, and:

- work with stakeholders to develop and implement local guidelines in the management of diabetes and intercurrent illness, promoting evidence-based practice and cost-effectiveness
- initiate and lead research in diabetes pharmacist contribution to management of diabetes and intercurrent illness through leadership and consultancy
- identify service shortfalls in the effective management of diabetes and intercurrent illness and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes at risk of complications from intercurrent illness, the diabetes population as a whole and the diabetes service
- influence national policy on how to manage diabetes and intercurrent illness
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.11 End-of-life care

To care for someone with diabetes at end of life you should be able to:

Foundation

- recognise policies on end-of-life care and diabetes
- recognise signs and symptoms that may signify that patient has hypoglycaemia or hyperglycaemia
- recognise that palliative care may vary in time, and diabetes control needs to be assessed individually and daily
- \bullet demonstrate knowledge of appropriate blood glucose targets (e.g. 6 15 mmol/L) to avoid hypoglycaemia and hyperglycaemia
- recognise that glucocorticoid steroids may cause diabetes, which may require insulin treatment; steroids can also worsen glycaemic control with pre-existing diabetes
- recognise that the aim of diabetes treatment in the last few days of life is to prevent discomfort from hypoglycaemia, hyperglycaemia and DKA or HHS
- recognise that people with type 1 diabetes must remain on insulin therapy during the last days of life
- recognise that people with type 2 diabetes may not need treatment for diabetes in the last few days of life
- recognise that people with type 1 diabetes may need a change in insulin (to a once-daily basal insulin, depending on that individual's eating pattern)
- recognise that, where possible, diabetes treatment plans and medication changes must be discussed with the patient, relatives or carers
- ensure appropriate transfer of information when patients move between care settings.

Advanced Stage 1

As for the foundation level, and:

- assess the person's needs and ensure they are pain free, adequately hydrated and symptom free from their diabetes
- recognise people with diabetes that may require referral for issues unrelated to diabetes, e.g. anxiety and dehydration; work with the palliative care team to achieve care in line with patient's wishes
- initiate and develop personalised care plans in collaboration with the person with diabetes and their carers or family
- describe indications for the initiation or discontinuation of blood-glucose-lowering agents in agreement with the person with diabetes and their carers
- advise on blood glucose monitoring and, if required, the appropriate frequency of monitoring in agreement with the person and carers
- recognise when treatment needs to be adjusted
- recognise that advanced care directives may be in place which specify the individuals wishes for treatment options and place of death
- audit personal practice in management of end-of-life care to identify areas of strength and improvement.

Advanced Stage 2

As for AS1, and:

- plan, implement and deliver education programmes around diabetes and palliative care for other HCPs
- if a registered non-medical prescriber, adjust and prescribe medication related to diabetes, as required, within own competencies and scope of practice
- work with the patient and the multidisciplinary team to develop advanced care directives that specify treatment wishes
- participate in developing guidelines and protocols related to diabetes and palliative care
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

As for AS2, and:

- work with stakeholders to develop and implement local guidelines for diabetes management at end of life, promoting evidence-based practice and costeffectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care at end of life, including contributing to national data collections and audits
- initiate and lead research in diabetes management at end of life through leadership and consultancy
- identify service shortfalls in appropriate management of diabetes at end of life and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations, and lead new practice and service redesign
- take measures to better meet the needs of people with diabetes at end of life, the diabetes population as a whole and the diabetes service

- lead on liaising with local and national end-of-life networks and diabetes teams in developing diabetes and end-of-life integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on appropriate management of someone with diabetes at end of life
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

1.12 Governance, safety and audit

To manage diabetes safely in line with local and national policy you should be able to:

Foundation	report identified errors using appropriate local systems
	outline local and national policies governing the management of diabetes
	understand current local and national safety campaigns related to diabetes, e.g. on insulin safety and hypoglycaemia awareness
	• contribute to local quality improvement audits and service developments.
Advanced	As for the foundation level, and:
Stage 1	interpret local trends in error reports and contribute to governance reports and meetings
	describe in detail local and national policies governing the management of diabetes
	• implement changes related to current safety campaigns related to diabetes, e.g. insulin safety and hypoglycaemia awareness
	contribute to local and national quality improvement audits and service developments
	provide support and advice to other HCPs on quality improvement, safety and service development.
Advanced	As for AS1, and:
Stage 2	analyse local error reports and use to identify quality improvement initiatives in patient care
	contribute to root cause analyses
	• implement changes in practice related to new national guidelines and policies
	participate in developing local or regional guidelines and protocols, related to improving patient safety and patient experience in diabetes
	plan, implement and deliver local and national quality improvement audits and service developments.
Mastery	As for AS2, and:
	• contribute to national error analysis and quality improvement measures
	work with stakeholders to develop and implement local guidelines for management of diabetes before, during and after procedures and investigations, promoting evidence-based practice and cost-effectiveness

- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care associated with healthcare contact, including contributing to national data collections and audits
- initiate and lead research for management of diabetes before, during and after healthcare contact through leadership and consultancy
- identify service shortfalls in cost-effective management of diabetes before, during and after healthcare contact and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes having healthcare, the diabetes population as a whole and the diabetes service
- influence national policy on management of diabetes before, during and after healthcare contact
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

2 Managing diabetes in hospital

These competencies apply specifically to those working in secondary care. They follow the patient journey and all pharmacists working in a hospital should be able to meet these competencies at one level.

2.1 General admission

To manage diabetes during a hospital admission you should be able to:

Foundation	• carry out duties expected of a competent pharmacist for the care of a person with diabetes				
	• interpret blood glucose, blood and urine ketone tests within local guidelines				
	• inform a registered nurse or doctor of any observed change in the condition of a person with diabetes				
	• understand national and local guidance and training requirement on insulin safety, including safe disposal of sharps				
	recognise common errors related to use of insulin within hospitals and work this healthcare teams to minimise them				
	demonstrate awareness of the importance of daily foot checks in those with poor mobility, the frail and the bedbound				
	understand the treatment regimen of the person with diabetes and device or delivery systems				
	recognise the impact that glucocorticosteroids have on blood glucose levels and trends				
	understand different non-insulin or insulin therapies and regimens				
	• assess the suitability of drugs depending on current eGFR level, intercurrent illness and specific contraindications				
	understand the different diabetic emergencies and their common precipitating factors				
	recognise the different indications for use of a variable-rate or fixed-rate insulin infusion				
	• understand the 'never event' policy for your trust and frameworks around this				
	understand appropriate referral systems to diabetes specialist teams, e.g. directors of service in nursing, consultants, dieticians, specialist pharmacists.				
Advanced	As for the foundation level, and:				
Stage 1	demonstrate knowledge of all current diabetes treatments				
	support and teach ward-based HCPs in how to use diabetes medications and				

- support and teach ward-based HCPs in how to use diabetes medications and promote insulin safety
- take blood glucose and ketone readings and perform urinalysis for people with diabetes within local guidelines and understand quality control methods for equipment being used
- review, interpret and act on daily foot checks carried out by others

- demonstrate knowledge of the management of diabetes medications before investigations and procedures
- explain and advise on care relating to hospital procedures and investigations for the person with diabetes
- recognise diabetes-related emergencies (e.g. DKA, HHS, hypoglycaemia) and recommend treatment according to local guidelines
- recognise appropriate glycaemic treatment targets for special patient groups (e.g. older people, those with significant comorbidities, the frail and those in end-of-life care)
- understand treatment pathways to manage steroid-induced hyperglycaemia
- understand the impact of enteral feeding of food supplements on blood glucose
- assess the ability to and, where appropriate, enable a person with diabetes to selfmanage their diabetes during an inpatient stay, according to local policy
- if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team; deliver regular diabetes training for ward staff
- enhance knowledge through CPD and disseminate knowledge to other HCPs
- demonstrate knowledge of national guidelines for the care of people with diabetes admitted to hospital
- demonstrate the safe use of insulin, e.g. Forum for Injection Technique (FIT) Plus
- establish, maintain and discontinue insulin infusion regimens according to local policy and individuals' needs

As for AS1, and:

- participate in the development or maintenance of local guidance for the care of people with diabetes in hospital
- provide expert advice on the care of people with complex diabetes or unusual regimens
- support the person with diabetes to maintain and re-establish diabetes selfmanagement
- participate in research on the care of people with diabetes in hospital
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- undertake a diabetes foot check, act on findings and participate in informing national initiatives to improve diabetes inpatient care, e.g. National Diabetes Inpatient Audits
- demonstrate autonomy and manage referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- lead an inpatient ward round as the responsible prescriber for diabetes referrals.
- work with stakeholders to develop and implement local guidelines on managing diabetes during a hospital admission, promoting evidence-based practice and cost-effectiveness

- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care during a hospital admission; contribute to national data collections and audits initiate and lead research in management of diabetes during a hospital admission through leadership and consultancy
- identify service shortfalls in effective management of diabetes during a hospital admission and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes during a hospital admission, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national secondary care networks and diabetes teams in developing joint diabetes and medical and surgical integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on cost-effective management of diabetes during a hospital admission
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

2.2 Surgery

To manage diabetes before and after surgery, in addition to the competencies outlined for general hospital admission, you should be able to:

Foundation	• understand policies on fasting in people with diabetes undergoing emergency and elective surgical or investigative procedures
	• follow guidelines on appropriate nutrition, monitoring of glycaemic control and administration of diabetes medication according to local guidelines
	• provide information to relatives and carers of people with diabetes
	• understand the metabolic effects of surgery on the diabetic patient.
Advanced	As for the foundation level, and:
Stage 1	• understand in detail the metabolic effects of surgery on the diabetic patient
	• take a patient history and discuss adherence with treatment and glycaemic control in order to perform a pre-operative assessment for a diabetic patient
	• advise on diabetes care surrounding pre- and perioperative procedures
	• demonstrate knowledge of the indications, management and discontinuation of a variable-rate insulin infusion
	• understand fluid management for people with diabetes requiring variable-rate IV insulin infusion
	• understand fluid management for people with diabetes not requiring variable-rate IV insulin
	 identify current medication (oral and injectable) and develop an individualised care plan, taking into account fasting requirements

- know when to refer to dietetics for nutritional review
- understand national recommendations, standards and guidelines for the care of people with diabetes undergoing surgery or investigation
- if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team
- assess and, where appropriate, enable a person with diabetes to self-manage their diabetes during an inpatient stay, according to local policy
- assess and respond to problems relating to the care of people with diabetes undergoing surgery
- educate all HCPs in the care of people with diabetes undergoing surgery
- audit personal practice in management of patients with diabetes undergoing surgery to identify areas of strength and improvement.

As for AS1, and:

- provide expert advice for people with diabetes with complex management problems or unusual regimens following surgery or investigation
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice, e.g. variable-rate insulin and fluids
- advise on management and independently manage people with diabetes in special circumstances, e.g. people with diabetes on insulin infusion pumps, undergoing emergency surgery and with stress hyperglycaemia
- participate in developing and maintaining local guidance for the care of people with diabetes undergoing surgical procedures
- participate in research or audit relating to the care of the person with diabetes undergoing surgery
- participate in national initiatives to improve inpatient care for people with diabetes undergoing surgical procedures or investigations
- join those putting in place local policy, education and procedures to avoid adverse outcomes in surgical inpatients, e.g. involvement in staff education programmes
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- run pre-operative diabetes clinics, where locally created, to optimise patients' diabetes control before surgery and create management plans for the perioperative period
- work with stakeholders to develop and implement local guidelines for management of diabetes before, during and after surgical procedures and investigations, promoting evidence-based practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care associated with surgical procedures and investigations, including contributing to national data collections and audits
- initiate and lead research for management of diabetes before, during and after surgical procedures through leadership and consultancy

- identify service shortfalls in cost-effective management of diabetes before, during and after surgical procedures and investigations, and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations, and lead new practice and service redesign measures to better meet the needs of people with diabetes having surgical procedures or investigations, the diabetes population as a whole and the diabetes service
- influence national policy on management of diabetes before, during and after surgical procedures and investigations
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

2.3 Discharge planning

To manage diabetes on discharge, in addition to the competencies outlined for general hospital admission, you should be able to:

Foundation

- reconcile changes on admission and start to plan for discharge from admission
- stratify discharges for inpatients with diabetes (simple, complex or rapid) and refer to specialist teams where needed
- refer to clinical management plans written by diabetes specialists
- use local and national guidelines to plan safe and effective discharge
- counsel the patient on changes to diabetes medicines and management
- understand any issues that need resolving when a patient moves between care settings
- identify inpatients who would benefit from referral to a community pharmacy for a new medicine service or medicine use review
- if working in community pharmacy, undertake an appropriate medicine use review or new medicine service review of a patient after discharge from hospital.

Advanced Stage 1

- assess competence for continuing self-care, e.g. knowledge of diabetes, self-management skills, education, social circumstances, expected change in functionality, barriers to self-care
- review clinical management plans for post-discharge and make suggestions for improvement involving input from the patient or carer
- keep the patient updated throughout their stay and provide a review of changes at the point of discharge
- communicate changes to diabetes care including any pending investigations or actions to relevant care providers in the community to ensure continuity of care
- provide people with diabetes with equipment to manage diabetes, e.g. glucose or ketone meters, needles, sharps bins
- provide tailored education to people with diabetes before discharge
- refer people with diabetes to relevant structured education courses postdischarge
- audit personal practice in discharge planning and transfer of care to identify areas
 of strength and improvement.

As for AS1, and:

- produce a care plan for post-discharge involving the patient and/or carers in a way that maximises independence
- assess and refer people with diabetes to relevant specialist care providers in the community (e.g. community diabetes multidisciplinary teams, dieticians, podiatrists, obesity services) to ensure continuity of care
- undertake post-discharge reviews of non-complex inpatients with diabetes in appropriate settings
- · participate in multidisciplinary team or best interest meetings
- develop local policies and practice for safe diabetes discharge
- demonstrate autonomy and management of referrals from other HCPs related to discharge of inpatients with diabetes.

Mastery

- run complex post-discharge diabetes clinics, where locally created, working to prevent re-admission in high-risk individuals with diabetes
- work with stakeholders to develop and implement local guidelines for management of diabetes before, during and after admission to a care facility, promoting evidence-based practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care following admission to a care facility, including contributing to national data collections and audits
- initiate and lead research for management of diabetes before, during and after admission to a care facility through leadership and consultancy
- identify service shortfalls in cost-effective management of diabetes before, during and after admission to a care facility and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes who are admitted to a care facility, the diabetes population as a whole and the diabetes service
- influence national policy on management of diabetes before, during and after admission to a care facility
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

3 Pregnancy

These competencies apply specifically to those working with pregnant women with diabetes or those with diabetes who are planning a pregnancy. They apply to those working in a specialist prenatal or antenatal setting in either primary or secondary care.

3.1 Pre-conception care

To support a woman with diabetes preparing for pregnancy you should be able to:

Foundation	demonstrate awareness of the need for pre-conception care					
	• direct women to local or online information and group sessions if available					
	• know how to recognise and treat hypoglycaemia.					
Advanced	As for the foundation level, and:					
Stage 1	understand the latest national guidelines					
	demonstrate an understanding of the need for pre-conception care and follow local guidelines					
	• explain to the woman with diabetes or her carer the need for pre-conception care					
	• identify medicines contraindicated in pregnancy, e.g. statins and angiotensin- converting enzyme (ACE) inhibitors and refer as necessary					
	• understand the need for the higher dose of folic acid					
	• understand the risk of hypoglycaemia and lower glucose targets in preparation for and during pregnancy					
	demonstrate knowledge of the appropriate referral system, including to a specialist diabetes team					
	demonstrate knowledge of latest care recommendations for the pre-conception management of diabetes					
	provide education that can support the woman to achieve pre-conception blood glucose targets including suitable increases in blood glucose testing					
	• audit personal practice in management of pre-conception care to identify areas of strength and improvement.					
Advanced	As for AS1, and:					
Stage 2	participate in pre-conception care as part of the multidisciplinary team					
	• understand the care processes that should be delivered as part of pre-conception care, including eye screening					
	if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice					
	demonstrate in-depth knowledge of pathophysiology of diabetes complications in pregnancy					
	develop and implement management plans including lower glycaemic targets, and identifying the risk and managing hypoglycaemia					
	• understand national and local guidelines on diabetes pre-pregnancy care					
	plan, implement and deliver education programmes around diabetes pregnancy care for other HCPs					
	participate in developing guidelines and protocols					

	raise awareness of the specific diabetes targets recommended during pregnancy						
	participate in audit of healthcare outcomes						
	demonstrate autonomy and management of referrals from other HCPs						
	• assess competencies of other HCPs.						
Mastery	As for AS2, and:						
	work with stakeholders to develop and implement local guidelines for pre- conception care, promoting evidence-based practice and cost-effectiveness						
	lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of pre-conception care, including contributing to national data collections and audits						
	initiate and lead research in diabetes pharmacy contribution to pre-conception care through leadership and consultancy						
	• identify service shortfalls in the management of pre-conception care and develop strategies with the local commissioning bodies to address them						
	identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of women planning a pregnancy, the diabetes population as a whole and the diabetes service						
	lead on liaising with local and national obstetric networks and diabetes teams in developing joint diabetes and obstetric integrated pre-conception care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries						
	influence national policy on pre-conception care						
	• collaborate with higher educational institutions and other education providers to						

3.2 Antenatal and postnatal care

To support a woman with impaired glucose tolerance (IGT), gestational diabetes and preexisting diabetes during and after pregnancy you should be able to:

meet the educational needs of other HCPs.

Foundation	carry out duties expected of a competent pharmacist to care for pregnant women with diabetes
	know how to recognise and treat hypoglycaemia appropriately
	understand the need for good glycaemic control to target
	• understand the need for regular blood glucose and blood ketone monitoring.
Advanced	As for the foundation level, and:
Stage 1	• understand the latest national guidelines
	 demonstrate awareness of the issues involved in a pregnancy complicated by diabetes
	• identify pregnant women with diabetes and immediately refer them to specialist team
	• advise on diabetes medications, dosage and regimens during and after pregnancy
	 understand the need for good glycaemic control to achieve specific pregnancy targets according to NICE
	understand the importance of ketone testing during pregnancy

- understand the threshold for ketone levels differs during pregnancy and make appropriate urgent referrals if there are abnormal results
- demonstrate an understanding of, and be involved in implementing, individual management plans and care targets
- identify medicines contraindicated in pregnancy and refer appropriately
- use protocols, specifically those relating to the care of women who develop diabetes during pregnancy
- communicate with the wider specialist team across primary and secondary care
- understand the importance of having a six-week postnatal HbA1c (and thereafter according to local policy) post-pregnancy if gestational diabetes or IGT is diagnosed during pregnancy
- audit personal practice in management of antenatal and postnatal care to identify areas of strength and improvement.

- demonstrate awareness of the psychosocial impact of diabetes in pregnancy
- provide emotional support and motivational strategies
- refer patient to appropriate services if there are concerns about her emotional wellbeing
- demonstrate knowledge of care recommendations for the management of diabetes in pregnancy, including the pathway for foetal monitoring
- understand the complications of pregnancy in women with pre-existing or gestational diabetes
- provide appropriate education about gestational diabetes and its management to women diagnosed with the condition
- recognise the situations that would lead to urgent referral and need for admission during pregnancy (e.g. symptoms of pre-eclampsia, euglycaemic DKA, severe hypoglycaemia)
- demonstrate an in-depth knowledge and understanding of pre-existing and gestational diabetes during pregnancy
- plan treatment to specific pregnancy targets according to NICE
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- develop and implement individual management plans, including post-delivery care and management of breast-feeding
- participate in developing management protocols, including adjustment of treatment post-delivery
- plan, implement and deliver education programmes around diabetes pregnancy care for all HCPs
- participate in research and audit
- advise on management of diabetes for clinical situations that may require steroid use during pregnancy, including management of existing conditions or for foetal lung maturation

	ensure effective communication systems are in place to inform GPs of the diagnosis of gestational diabetes in their patients
	demonstrate autonomy and manage referrals from other HCPs
	assess competencies of other HCPs.
Mastery	As for AS2, and:
	work with stakeholders to develop and implement local guidelines for the management of pregnancy, promoting evidence-based practice and cost- effectiveness
	lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes pregnancy care, including contributing to national data collections and audits
	initiate and lead research in management of pregnancy in impaired glucose states and diabetes through leadership and consultancy
	identify service shortfalls in the management of pregnancy in women with IGT, gestational and existing diabetes, and develop strategies with the local commissioning bodies to address them
	identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of women during pregnancy, the diabetes population as a whole and the diabetes service
	lead on liaising with local and national obstetric networks and diabetes teams in developing joint diabetes and obstetric integrated care pathways; develop integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
	influence national policy on management of pregnancy in women with IGT, gestational and existing diabetes
	• collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

4 Diabetes complications

These competencies apply to the general aspects of care of comorbidities that should be offered to all people with diabetes. It is expected that all pharmacists working in diabetes would be able to meet these competences at one level.

4.1 Cardiovascular disease

To care for people with established cardiovascular (CVD) disease or associated risk factors (including hypertension and dyslipidaemia) you should be able to:

Foundation

- demonstrate awareness of the normal parameters for blood pressure measurements
- demonstrate awareness of the normal parameters for blood lipids
- demonstrate awareness of the risk factors for CVD
- identify people with diabetes at risk of CVD
- undertake a comprehensive CVD risk assessment using an accepted risk calculation tool (e.g. QRisk2)
- recognise and describe the impact of fear and anxiety on blood pressure readings
- discuss lifestyle measures, such as eating a healthy diet, taking exercise and ceasing smoking, and how they can reduce the risk of CVD
- explain to people with diabetes how their medications work, how to take them, how to recognise potential side-effects and to know when and how to report them
- refer people with diabetes for appropriate specialist intervention.

Advanced Stage 1

- perform blood pressure measurement in accordance with hypertension guidelines published in collaboration between the British Hypertension Society and NICE
- recognise the pattern of lipid abnormalities seen in people with diabetes
- describe the range of treatments available for managing lipid abnormalities beyond statins
- interpret and act on test results appropriately
- order appropriate blood tests and specialist investigations
- initiate and develop personalised care plans and set goals with the person with diabetes to reduce CV risk
- if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team
- develop and deliver education proficiently
- recognise and describe the link between diabetes and CVD
- manage and coordinate individual patient care and education programmes
- understand policies on preventing and managing CVD and participate in developing local guidelines and protocols
- audit personal practice in management of cardiovascular disease and diabetes to identify areas of strength and improvement.

As for AS1, and:

- recognise the need to refer patients with atypical or severe dyslipidaemia to specialist services
- lead service development
- use evidence to develop practice and develop guidelines and protocols
- coordinate services across organisational and professional boundaries
- be aware of other conditions that may affect CV risk such as familial hypercholesterolaemia and polycystic ovary syndrome
- manage cardiovascular comorbidities alongside diabetes care
- provide an organised programme of care designed to manage established CVD according to local and national guidelines
- demonstrate knowledge and skills that support behaviour change
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- develop integrated care pathways with multidisciplinary teams, hypertension and cardiac specialists and liaise with them
- demonstrate autonomy and ability to manage referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- diagnose and manage people with diabetes with primary and secondary lipid disorders
- work with stakeholders to develop and implement local guidelines on screening, preventing and managing CVD, promoting evidence-based practice and costeffectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures and produce information on the outcomes of diabetes care and prevention and management of CVD, including contributing to national data collections and audits
- initiate and lead research in diabetes pharmacist contribution to prevent and manage CVD through leadership and consultancy
- identify service shortfalls in the prevention and management of CVD and develop strategies with local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes at risk of and with CVD, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national cardiac networks and cardiac rehabilitation and diabetes teams in developing joint diabetes and cardiac integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on prevention and management of diabetes and CVD
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

4.2 Neuropathy

To care for people with, or at risk of, neuropathy you should be able to:

Foundation • recognise the need for annual foot screening for people with diabetes demonstrate awareness that all people with diabetes are at risk of neuropathy, including sexual dysfunction know which people with diabetes in your care have neuropathy • direct people with diabetes to appropriate care • give foot care advice to people with diabetes, their carer and HCPs • demonstrate awareness of contraindications for medications, including topical preparations in people with diabetes with neuropathy. **Advanced** As for the foundation level, and: Stage 1 • demonstrate awareness of the pathogenesis and manifestations, and how to prevent diabetic neuropathy describe measures to prevent tissue damage in people with diabetes • understand erectile and sexual dysfunction as a neuropathic process, and refer where appropriate measure standing and lying blood pressure using appropriate devices demonstrate the procedure of basic diabetes foot screening in line with national guidance and/or local protocols, record screening results in the patient record and allocate risk status screen for neuropathy, including sexual dysfunction, according to local guidelines identify risk factors in developing neuropathy • identify factors that may affect neuropathy (e.g. poor glycaemic control) • refer appropriately within the multidisciplinary team for identified neuropathy issues know treatments for neuropathy • if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team audit personal practice in management of diabetic neuropathy to identify areas of strength and improvement. **Advanced** As for AS1, and: Stage 2 demonstrate detailed knowledge of the management and treatment of neuropathy • conduct a holistic assessment of the person with diabetes for neuropathic risk and ability to self-care carry out an in-depth neurovascular assessment, including gastrointestinal symptoms and possible effects on blood glucose control assess knowledge of people with diabetes of neuropathy risk • advise people with diabetes and their carer about neuropathy and its management, and support them provide or refer for psychological support as required demonstrate knowledge of treatments for neuropathy and the associated diabetes

management

- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- educate HCPs on the prevention, progression and screening for neuropathy
- integrate management of diabetes with other contributing conditions
- participate in protocol development, implementation and monitoring
- participate in research and disseminate evidence-based practice
- support or contribute to specialist diabetes clinics (e.g. pain management, erectile dysfunction)
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- support the management of people with diabetic gastroparesis, including adjustment of treatment where needed in collaboration with other medical specialists.
- work with stakeholders to develop and implement local guidelines for preventing and managing neuropathic conditions, promoting evidence-based practice and costeffectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care for preventing and managing neuropathy, including contributing to national data collections and audits
- initiate and lead research in diabetes pharmacy and neuropathy through leadership and consultancy
- identify service shortfalls in the prevention and management of neuropathy and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations, and lead new practice and service redesign measures to better meet the needs of people with diabetes at risk or with neuropathic conditions, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national podiatry, sexual dysfunction and other
 relevant networks, and podiatry, diabetes and pain management teams, to develop
 diabetes integrated care pathways, including integrated IT measures and systems
 for diabetes that record when individuals need multidisciplinary team care across
 service boundaries
- influence national policy on the prevention and management of neuropathic conditions
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

4.3 Nephropathy

To care for people with, or at risk of, nephropathy you should be able to:

Foundation

- demonstrate awareness that all people with diabetes are at risk of chronic kidney disease and acute kidney injury (AKI)
- know which people with diabetes in your care have nephropathy
- demonstrate awareness of the five different stages of eGFR in chronic kidney disease
- understand the difference between eGFR and creatinine clearance (CrCl) and which is to be used in certain populations
- demonstrate awareness of diabetes medications requiring dose reduction or are contraindicated in renal disease
- understand the risk of lactic acidosis with metformin and renal disease
- understand the impact chronic kidney disease has on the excretion of some diabetes medications and the associated increased risk of hypoglycaemia
- know the blood pressure targets for people with diabetes and renal disease and the choice of antihypertensive agent in people with diabetes and chronic kidney disease.

Advanced Stage 1

- demonstrate awareness of annual screening tests to detect nephropathy
- organise for albumin-to-creatinine ratio (ACR) screening, blood pressure measurement and blood tests according to local and national protocols and guidelines
- refer those whose results are outside the expected range and plan follow-up
- demonstrate awareness of how to detect and interpret proteinuria
- educate people with diabetes or their carer in prevention and importance of screening for nephropathy
- demonstrate awareness of the impact that deteriorating renal function may have on glycaemic control, CV risk and foot disease
- review medication and make appropriate dose changes
- demonstrate a broad knowledge of renal treatments, including renal replacement therapy and transplantation
- demonstrate knowledge of how immunosuppressant treatment, including steroids, may affect glycaemic control
- demonstrate a broad knowledge of renal treatments and their impact on glycaemic control
- demonstrate awareness of the impact that renal replacement therapy may have on glycaemic control, including the additional risk of hypoglycaemia and potential need for reductions in diabetes medication; advise on potential adjustments
- demonstrate awareness of monitoring requirements for immunosuppressant therapy
- know when to refer to specialist renal or diabetes teams and participate in multidisciplinary teams
- know when to refer to dietetics for advice on diabetes and renal diets

- understand fluid restrictions required in people with advanced kidney disease
- demonstrate how peritoneal dialysis fluids can affect diabetic control
- understand relevant national policies
- if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team
- audit personal practice in management of diabetic nephropathy to identify areas
 of strength and improvement.

As for AS1, and:

- participate in research or audit and disseminate evidence-based practice
- participate in education programmes for HCPs
- participate in developing protocols or guidelines in line with national recommendations
- educate HCPs on prevention, progress and screening for nephropathy
- understand that some blood glucose test strips are not compatible with peritoneal dialysis fluids
- understand that insulin may be added to peritoneal dialysis bags and educate other HCPs on this use
- understand post-transplant diabetes and the risk factors for development and management
- understand simultaneous pancreas kidney transplants and know who they may be useful for
- understand islet cell transplants and know who they may be useful for
- if a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- provide or refer for psychological support as required
- participate in the development and monitoring of the integrated care pathways
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- work with stakeholders to develop and implement local guidelines for preventing and managing nephropathy, promoting evidence-based practice and costeffectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care and prevention and management of nephropathy, including contributing to national data collections and audits
- initiate and lead research in how diabetes pharmacists can contribute to the prevention and management of diabetes and renal disease through leadership and consultancy
- identify service shortfalls in the prevention and management of diabetes-related renal disease and develop strategies with the local commissioning bodies to address them

- identify the need for change, proactively generate practice innovations, and lead new practice and service redesign measures to better meet the needs of people with diabetes at risk of or with diabetes-related renal disease, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national renal networks and diabetes and renal teams in developing joint diabetes and renal integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on prevention and management of diabetes-related renal disease
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

4.4 Retinopathy

To care for people with, or at risk of, retinopathy you should be able to:

Foundation	• demonstrate awareness that all people with diabetes are at risk of retinopathy					
	• support people with diabetes who have impaired vision					
	• encourage people with diabetes to attend all retinal screening appointments					
	• recognise the need for regular retinal screening.					
Advanced	As for the foundation level, and:					
Stage 1	demonstrate awareness of retinopathy complications and prevention					
	educate the person with diabetes and their carer about the prevention of, and the importance of screening for, retinopathy					
	participate in education programmes for HCPs					
	• refer people with diabetes with poor or reduced vision to eye clinic liaison officers for access to vision aids					
	• recognise the importance of good glycaemic, blood pressure and cholesterol control in preventing and/or progressing diabetic retinopathy					
	ensure pregnant women have three-monthly retinopathy screening					
	 audit personal practice in management of diabetic retinopathy to identify areas of strength and improvement. 					
Advanced	As for AS1, and:					
Stage 2	participate in research and disseminate evidence-based practice					
	• write and review local protocols and guidelines in line with national guidelines					
	• understand the impact of anti-diabetes medications on diabetic eye diseases					
	review medication and ensure changes are made as required					
	provide or refer for psychological support as required					
	• plan, implement and deliver education programmes for HCPs and new retinal screeners					
	participate in the development and monitoring of integrated care pathways					
	keep updated with new therapies available for people with diabetic macular oedema					
	demonstrate autonomy and management of referrals from other HCPs					
	• assess competencies of other HCPs.					

Mastery

- work with stakeholders to develop and implement local guidelines for the screening and management of retinopathy, promoting evidence-based practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care and retinopathy, including contributing to national data collections and audits
- initiate and lead research in the contribution of diabetes pharmacists to the identification, prevention and management of retinopathy through leadership and consultancy
- identify service shortfalls in the screening, prevention and management of diabetic retinopathy and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes at risk of or with retinopathy, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national retinopathy screening and ophthalmology networks and diabetes teams in developing joint diabetes and retinopathy integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on diabetic retinopathy
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

5 Role dependent special environments

These competencies apply to specific areas of practice. Not all pharmacists are expected to meet them and they apply in particular settings, alongside the competencies for general care.

5.1 Prison and young offender units

To support someone with diabetes residing in a prison or young offender unit you should be able to:

Foundation

- demonstrate an understanding of specific issues in caring for people with diabetes in prison or a secured unit, such as the optimal timing of meals in relation to taking diabetes medication and the normal glycaemic range for the individual, and report readings outside this range to the appropriate person
- demonstrate knowledge of the signs of, and appropriate treatment for, hypoglycaemia and hyperglycaemia
- recognise and follow local policy on sharps disposal
- demonstrate awareness of the potential impact of lifestyle issues on the prevention and progression of diabetes
- broadly understand diabetes medications and their side-effects
- broadly understand the local policy for treating hypoglycaemia and follow local protocols
- identify state action within the local policy for treating hyperglycaemia and intercurrent illness, and follow local protocols
- know when to refer for medical assessment or specialist care
- understand the work of other agencies (e.g. community health staff including GP, dietetic, ophthalmology and podiatry services) and how to refer people with diabetes to them.

Advanced Stage 1

- demonstrate an in-depth understanding of specific issues on the care of people with diabetes in prison or a secured unit, including how to recognise depression, anxiety and other mental illness in people with diabetes
- understand policies and procedures on the management of diabetes within the custodial environment
- understand prison and care home policies on the use of prescription medications and sharps disposal
- demonstrate knowledge of the impact of substance and alcohol misuse on glycaemic control and the increased risk of hypoglycaemia
- assess someone on arrival to prison checking their previous knowledge of diabetes, previous access to diabetes care, and understanding of their individual treatment goals
- identify offenders with diabetes who are at a high risk of poor glycaemic, lipid and blood pressure control, and develop appropriate care plans for them with their input
- identify offenders who are at high risk of hypoglycaemia or lack hypoglycaemia awareness, and ensure that safeguarding is in place

- demonstrate knowledge of implications that "not-in-possession medications" may have on glycaemic control
- follow local policy and in-house guidance on the care of offenders with diabetes in secured units
- understand the need for regular cardiovascular, neuropathy and retinopathy screening in offenders with diabetes
- work with offenders with diabetes who have difficulty adhering to medications adherence, and encourage self-management with an agreed care plan if appropriate
- ensure offenders understand how to take their medication, are aware of sideeffects and know how to report them
- ensure the principles of active decision-making and a care-planning approach is available to all people with diabetes
- manage and coordinate individual diabetes patient care and education programmes
- monitor intercurrent illness and know when to seek specialist advice
- plan for ongoing diabetes care following a patient's release

As for AS1, and:

- work with individuals who are at risk of developing diabetes after starting other medication, e.g. antipsychotic medicine, to develop a care plan for diabetes prevention
- demonstrate expert knowledge of diabetes medications and prescribe, if qualified as an independent non-medical prescriber, within own scope of practice
- provide expert advice on the care of offenders with diabetes
- coordinate services across organisational and professional boundaries
- participate in guideline and/or protocol development
- initiate and/or participate in audit and research
- work with prison healthcare staff to raise awareness of diabetes and its short- and long-term complications across prison staff groups
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- work with stakeholders to develop and implement local guidelines for care of people with diabetes in prison and young offenders units, promoting evidencebased practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care in prison and young offenders units, including contributing to national data collections and audits
- initiate and lead research on diabetes management in prison and young offender units through leadership and consultancy
- identify service shortfalls in the care of people with diabetes in prisons and young offender units, and develop strategies with the local commissioning bodies to address them

- identify the need for change, proactively generate practice innovations and lead new practice and service redesign measures to better meet the needs of people with diabetes in prisons and young offender units, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national prison networks and staff and diabetes teams in developing diabetes integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on management of diabetes in prisons and young offender units
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

5.2 Residential and nursing homes

To care for someone with diabetes living in a residential or nursing home you should be able to:

Foundation

- demonstrate an understanding of specific issues in caring for people with diabetes in residential or nursing homes, such as the optimal timing of meals in relation to taking diabetes medication, and know the right course of action if food is refused
- adjust the formulation of medicines if there is a change in circumstance, e.g. a swallowing impairment
- recognise the risk of, and signs, symptoms and treatment for, hypoglycaemia; perform blood glucose monitoring and urine testing according to manufacturers' instructions if trained and competent to do so; recognise and follow local policy on the disposal of sharps; understand the normal glycaemic range and report readings outside this range to the appropriate person
- broadly understand diabetes medications and their side-effects
- demonstrate awareness of the potential impact of lifestyle changes on the prevention and progression of diabetes
- ensure residents understand how to take their medication, are aware of sideeffects and know how to report them.

Advanced Stage 1

- identify people with diabetes who are at high risk of poor glycaemic, lipid and blood pressure control outside individualised targets
- assess frailty and set individualised targets to avoid hypoglycaemia and symptomatic hyperglycaemia
- measure blood pressure in accordance with hypertension guidelines published in collaboration between the British Hypertension Society and NICE
- interpret and act on test results appropriately
- identify and review the specifics of diabetes management in each person's individualised care plan
- understand diabetes medications and their timings in relation to meals and possible side-effects
- if a registered non-medical prescriber, initiate or adjust existing medications as required in consultation with the multidisciplinary team
- understand policies and procedures on the management of diabetes and older people, including patients with high frailty scores

- know when to refer for GP assessment or specialist care
- understand the requirement for vaccination, e.g. influenza
- work with care home managers to ensure residents have access to retinopathy screening
- work with local health providers to ensure residents have access to podiatry, as required
- understand the work of other agencies (e.g. community health services, dietetic and podiatry services, social services and voluntary organisations), and how to refer people with diabetes to them
- follow local policy and guidance on care of people with diabetes in residential or care homes, and understand current national reports and guidance
- manage and coordinate individual patient care and deliver HCP education programmes depending on the needs of residential staff
- know how to monitor intercurrent illness in relation to glycaemic control, and when to seek specialist advice
- report regular hypo- and hyperglycaemic episodes to the patient's GP for a joint review of management plan and medication.

As for AS1, and:

- demonstrate expert knowledge of diabetes medications
- provide expert advice on the care of people with diabetes in residential and nursing homes, including individualised targets for blood glucose and blood pressure
- If a registered non-medical prescriber, autonomously initiate and optimise medications and organise ongoing monitoring, as required, within own competencies and scope of practice
- coordinate services across organisation and professional boundaries
- participate in guideline and or protocol development
- initiate and/or participate in audit and research
- develop appropriate education programmes in collaboration with care home staff
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- work with stakeholders to develop and implement local guidelines for the care of people with diabetes living in residential and nursing homes, promoting evidencebased practice and cost-effectiveness
- lead on developing, auditing and reporting on patient-related experience and outcome measures, and produce information on the outcomes of diabetes care in residential and nursing homes, including contributing to national data collections and audits
- initiate and lead research on diabetes and residential and nursing homes through leadership and consultancy

- identify service shortfalls in the care of people with diabetes living in residential and nursing homes and develop strategies with the local commissioning bodies to address them
- identify the need for change, proactively generate practice innovations, and lead new practice and service redesign measures to better meet the needs of people with diabetes living in residential and nursing homes, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national networks, diabetes teams and staff in residential and nursing homes in developing diabetes integrated care pathways, including integrated IT measures and systems for diabetes that record when individuals need multidisciplinary team care across service boundaries
- influence national policy on the care of people with diabetes living in residential and nursing homes
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

5.3 Paediatrics

To care for children with diabetes you should be able to:

Foundation

- define the key aspects of diagnosis of diabetes in children
- direct children and young people with diabetes to the appropriate local specialist service
- understand that young people with diabetes will predominantly have type 1 diabetes
- encourage children and young people with type 1 diabetes not to start smoking
- explain to children and young people and their family members or carers the benefits of having annual immunisation against influenza and pneumococcal infection
- define the optimal target ranges for capillary blood glucose control in children and young people
- educate children with diabetes and their carers on the 'sick-day rules' and how to manage periods of hyperglycaemia and intercurrent illness.

Advanced Stage 1

- define the risk factors and indications of type 2 diabetes, monogenic or mitochondrial diabetes in children and young people
- refer children and young people with diabetes to the appropriate specialist team
- perform the following monitoring for children and young people with diabetes: check height and weight, and check for normal growth and/or significant changes in weight; encourage attendance at diabetic retinopathy and nephropathy screening from age 12 years; understand that it is not accurate to monitor these complications before this age
- demonstrate knowledge of the effect of adolescence and hormonal changes on blood glucose control
- understand the possibility of non-adherence to therapy in children and young people with type 1 diabetes who have suboptimal blood glucose control, especially in adolescence

- understand that children and young people with type 1 diabetes have a greater risk than other young people of having emotional and behavioural difficulties
- understand that children and young people taking insulin for diabetes may develop DKA with normal blood glucose levels
- demonstrate knowledge of how to manage DKA in children and young people and understand the increased risk of cerebral oedema
- Discuss and use local protocols for transferring young people with diabetes from paediatric to adult services

As for AS1, and:

- provide expert advice on complex cases, including type 2 monogenic or mitochondrial diabetes in children and young people
- refer children and young people with type 1 diabetes and their family members or carers to a continuing programme of education from diagnosis
- provide expert advice on lifestyle choices including in sport, sexual health, driving, drugs and alcohol
- demonstrate expert knowledge of the possible negative psychological impact of diabetes treatment and targets
- identify signs related to the emotional and psychological wellbeing of young people with type 1 diabetes who present with frequent episodes of diabetic ketoacidosis (DKA)
- understand the following rare complications and associated conditions: juvenile cataracts, necrobiosis lipoidica and Addison's disease
- facilitate or manage the transition from the paediatric to adult services to ensure coordination with other life transitions
- coordinate services across organisational and professional boundaries
- participate in guideline and/or protocol development
- initiate and/or participate in audit and research
- demonstrate autonomy and management of referrals from other HCPs
- assess competencies of other HCPs.

Mastery

- work with stakeholders to develop and implement local guidelines for the care of people with children and young people with diabetes, promoting evidence-based practice and cost-effectiveness
- lead on developing, auditing and reporting on paediatric patient-related experience and outcome measures, and produce information on the outcomes of paediatric diabetes care, including contributing to national data collections and audits
- initiate and lead research on diabetes and paediatrics through leadership and consultancy
- identify service shortfalls in the care of children with diabetes and develop strategies with the local commissioning bodies to address them

- identify the need for change, proactively generate practice innovations, and lead new practice and service redesign measures to better meet the needs of children and young people, the diabetes population as a whole and the diabetes service
- lead on liaising with local and national networks, diabetes teams and patients
 or carers in developing paediatric diabetes integrated care pathways, including
 integrated IT measures and systems for diabetes that record when individuals
 need multidisciplinary team care across service boundaries
- influence national policy on the care of children and young people with diabetes
- collaborate with higher educational institutions and other education providers to meet the educational needs of other HCPs.

References

General Pharmaceutical Council, Standards for pharmacy professionals, May 2017.

Royal Pharmaceutical Society, Advanced Pharmacy Framework, 2013

Royal Pharmaceutical Society, Foundation Pharmacy Framework, Jan 2014

TREND-UK, An Integrated Career and Competency Framework for Diabetes Nursing, 4th Ed. 2015.

Appendix 1 Action plan

What competencies do I currently meet and at what level?

Only consider competencies that are relevant to your current role. What level are you currently working at?

Competence	Level				
	Foundation	AS1	AS2	Mastery	
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
1.10					
1.11					
1.12					
2.1					
2.2					
2.3					
3.1					
3.2					
4.1					
4.2					
4.3					
4.4					
5.1					
5.2					
5.3					

	\neg
What evidence do I have to show my competence?	
what evidence do I have to show my competence:	
This evidence can be added to a portfolio to demonstrate your skills and knowledge.	
Consider written reports, audits, peer review, appraisals, reflective accounts or patient	
responses. The RPS Faculty website provides many examples of evidence that can be	
collected.	
conected.	

What competencies do I want to develop in the next 12 months?

Consider whether to develop specific competencies to a higher level or whether there is an area of practice that you want to start developing.

Competence	Level				
	Foundation	AS1	AS2	Mastery	
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
1.10					
1.11					
1.12					
2.1					
2.2					
2.3					
3.1					
3.2					
4.1					
4.2					
4.3					
4.4					
5.1					
5.2					
5.3					

What activities can I undertake to develop my competence?					
How will these activities allow you to develop your practice? Attending training to develop knowledge is only the first step and you should consider how you will work differently or develop your skills.					

Contact details

For any feedback or enquiries regarding this framework please contact the UKCPA Office on general.enquiries@ukcpa.com

ISBN 978 1 870156 69 1