



NEW ZEALAND NATIONAL INTEGRATED KNOWLEDGE, SKILLS AND CAREER FRAMEWORK FOR DIABETES DIETITIANS

Table of Contents

Foreword	3
1. National Integrated Knowledge, Skills and Career Framework for Diabetes Dietitians	
1.1 Rationale and Approach	4
1.2 Introduction	5
1.3 Areas / Scope of practice	5
1.4 How can the National Integrated Knowledge, Skills and Career Framework assist dietitians and employers?	9
2. How to use this framework	9
3. Summary	10
4. Competency Statements	
<u>Section 1: Pathophysiology, Epidemiology and Clinical Diabetes Guidelines</u>	11
Pathophysiology	11
Epidemiology	11
Clinical Practice Guidelines	11
<u>Section 2: Medical Nutrition Therapy for Diabetes Management</u>	13
Medical Nutrition Therapy	13
Obesity	15
Physical activity	15
<u>Section 3: Clinical Diabetes Management</u>	17
Care planning and collaboration	17
Monitoring of glycaemic control	18
Hypoglycaemia	18
Diabetic Ketoacidosis (DKA) and Hyperosmolar Hyperglycaemic State (HHS)	19
Hyperglycaemia	19
Management during concurrent illness	20
<u>Section 4: Diabetes Medication</u>	22
Diabetes tablets and injectable insulin therapy	22
Insulin pump therapy	23
<u>Section 5: Specific Medical Nutrition Therapy Needs Across the Lifespan</u>	24
Diabetes in Pregnancy – Gestational Diabetes (GDM)	24
Diabetes in Pregnancy – Pregnancy in pre-existing diabetes	25
Children and adolescents with Type 1 and Type 2 diabetes	26
Older adults and diabetes, and people with diabetes living in care facilities	27
Managing diabetes in hospital (inpatient care)	28
<u>Section 6: Microvascular and Macrovascular complications</u>	30
Diabetic retinopathy and neuropathy	30
Diabetic nephropathy	30
Gastroparesis	31
Macrovascular disease	31
<u>Section 7: Co-existing conditions</u>	33
Coeliac Disease	33
Eating Disorders	33

Other co-existing conditions	34
<u>Section 8: Teaching and learning skills</u>	35
<u>Section 9: Behavioural approaches and communication</u>	37
<u>Section 10: Cultural approaches and working with high risk populations</u>	39
<u>Section 11: Audit and research</u>	40
References	41
List of Abbreviations	42

DISCLAIMER: This framework has been formulated for NZ Registered Dietitians to be used for individual self-evaluation and development of practice. It is not intended to solely guide individual remuneration or salary levels. The information contained in this framework is not a substitute for the exercise of professional judgement and best practice by the healthcare professional. Use of the standards for any other purpose other than that for which they are intended is at the discretion of the user and no organisation associated with this document shall have liability if used in any other way.

FOREWORD

It is widely recognised that diabetes dietitians have a very important role in the delivery of care to people with diabetes in a variety of settings.

In 2013, the need for a comprehensive framework that encompassed a reference guideline for the knowledge and skills required by dietitians caring for people with diabetes to ensure best possible outcomes was identified. In addition, it was timely to provide guidance for New Zealand Registered Dietitians (NZRDs) working in diabetes and related conditions with a career framework that will support them in working to the top of their scope of practice. A working group was established by the Diabetes Special Interest Group (DSIG) of Dietitians New Zealand, which included members from across New Zealand (NZ) working in a variety of practice settings. Their task was to start developing a framework for NZRDs based on the UK Integrated Career and Competency Framework for Dietitians and Frontline Staff (2011) and the New Zealand National Diabetes Nursing Knowledge and Skills Framework (2009).

The initial working group consisted of (alphabetically):

- Sue Benny – Waitemata District Health Board
- Marilyn Cullens – Canterbury District Health Board
- Lynne Ferguson – Counties Manukau District Health Board
- Eirean Gamble – Waitemata District Health Board
- Ann Gregory – Capital and Coast District Health Board and New Zealand Society for the Study of Diabetes (NZSSD) Executive Committee member
- Alayne Healy – Counties Manukau District Health Board
- Emma Irwin – Canterbury District Health Board
- Amy Liu – Auckland District Health Board
- Shelley Mitchell – MidCentral District Health Board and Dietitians NZ Diabetes Special Interest Group (DSIG) Convener and the Diabetes Dietitians Framework Project Lead.

In 2015, Lynne Ferguson and Alayne Healy were commissioned to further develop and formalise the framework based on the work completed to date. Throughout the development of this framework the Project Lead and DSIG Committee, other diabetes dietitians, and key professional stakeholder groups were consulted widely and repeatedly.

The development of the framework has received support from Dietitians NZ and the NZ Dietitians Board, and would not have been possible without the financial support of the New Zealand Society for the Study of Diabetes (NZSSD). We would also like to extend our grateful thanks to Dr Trudi Deakin for her kind permission to use the UK Integrated Career and Competency Framework for Dietitians and Frontline Staff as a foundation for this document, and to Dr Helen Snell for her support and expertise from the National Diabetes Nursing Knowledge and Skill Framework which was used as a guideline for this framework.

In addition to the initial working group members and the NZSSD and diabetes nurse reviewers, we also greatly appreciate and acknowledge input from the following people: Louise Beckingsale, Elaine Chong, Jayne Moretto, Joanne Iremonger, Nicky McCarthy, Dr Ryan Paul, Caryn Zinn and others who have provided expertise and feedback during the development process.

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1. National Integrated Knowledge, Skills and Career Framework for Diabetes Dietitians

Diabetes is a significant health challenge, with nutrition therapy and self-management education being an integral component of high-quality diabetes care. All dietitians deliver care to people with diabetes in a variety of settings e.g. hospitals, community health settings and private practice, including as part of multidisciplinary general and specialist health care teams. The New Zealand National Integrated Knowledge, Skills and Career Framework for Diabetes Dietitians has been developed to deliver best practice in the nutritional management of diabetes and related conditions, and assist NZ registered dietitians to demonstrate they are adequately prepared to provide the required care and education for the person with diabetes, whatever their practice setting, and in accordance with their scope of practice.

1.1 Rationale and Approach

The rates of diabetes diagnoses amongst New Zealanders is rapidly increasing and is one of the country's fastest growing long term conditions. More than a quarter of a million people are estimated to be living with diabetes in NZ, with this number increasing by approximately 40 people per day. Obesity is a strong predictor of the development of Type 2 diabetes, and is a particular challenge for Pacific adults and children with very high obesity rates, approximately 68% and 27% respectively (Ministry of Health, 2013a).

The significance of a growing diabetes population and the challenges this presents to the healthcare workforce was highlighted by the Ministry of Health in 2015 with the "Living Well with Diabetes: A plan for people at high risk of or living with diabetes 2015-2020." This outlines a five year plan to achieve better outcomes for people with diabetes, or at risk of developing diabetes, by aiming to ensure all people with diabetes to have access to high-quality services and a health workforce that is flexible and responsive to people's needs.

Evidence is strong that Medical Nutrition Therapy that includes diabetes-specific dietary advice provided by registered dietitians can improve clinical and metabolic outcomes associated with diabetes and cardiovascular risk (Ministry of Health, 2014, Franz et al, 2008). The American Diabetes Association Standards of Medical Care (2016) recommend that all individuals with diabetes should receive individualized Medical Nutrition Therapy (MNT), preferably provided by a registered dietitian who is knowledgeable and skilled in providing diabetes MNT. In 2011, the New Zealand Guidelines Group (NZGG, 2011) also recommended that all people with diabetes are offered evidence based dietary advice, preferably by a registered dietitian. More recently, the Ministry of Health (2014) stated that all New Zealanders with Type 1 diabetes should be referred for personalised dietary advice from a registered dietitian upon diagnosis and on an ongoing basis as required. They also specified that people with Type 2 diabetes should have access to nutritional advice from an appropriately trained health professional in either a one-to-one or group consultations.

In addition to providing excellent clinical care, health professionals will also need other skills such as: responding to health literacy, supporting behaviour change (particularly weight loss and diabetes self-management), identifying complications and providing psychological and emotional support (Ministry of Health, 2015). A flexible workforce requires an expansion of current scopes of practice and a focus on developing these additional skills. In addition, clinicians must be accountable for high-quality practice, sharing their learnings, and monitoring and improving the effectiveness of their services. To support this level of professional development Diabetes UK (2014) suggests that knowledge and skills frameworks should be underpinned by the national co-ordination of competency frameworks. This framework therefore attempts to acknowledge these skill requirements, in addition to the clinical nutrition competencies, necessary to ensure NZ registered dietitians are providing diabetes care appropriate to their level of clinical activity in a safe, effective and meaningful way.

1.2 Introduction

Medical nutrition therapy (MNT), dietary and lifestyle advice is an essential part of diabetes care and diabetes self-management education. More specifically, MNT pertains to clinical management involving in-depth individualised nutritional assessment, treatment and a frequency of care using the nutrition care process to manage disease and as such is conducted by Registered Dietitians (American Diabetes Association, 2008 and 2016; American Dietetic Association, 2010; Deakin, 2011). Dietitians are the experts in nutritional advice for people with diabetes, from those at risk of developing Type 2 diabetes to those with medically complex Type 1 diabetes, and therapeutic dietary interventions are integrated across the continuum of the patient's journey. Therefore it is essential that all dietitians demonstrate a basic level of competency in diabetes management, and there is a critical need for more dietitians with specialist / advanced skills working in diabetes with an extended scope of clinical practice.

The inter-relationship between nutrition and medical therapies is integral for optimal management and outcomes in diabetes. The NZ healthcare landscape has changed in the last 5-10 years:-

- The demand for dietitians with specialist skills has outgrown the current supply and there is a growing population of New Zealanders with diabetes requiring multidimensional input e.g. youth developing Type 2 diabetes, inpatients and older people with diabetes who may have complex medical and social needs
- The rising incidence of gestational diabetes (GDM) requiring intensive dietary input and management, both in terms of prevention and treatment, requiring widespread access to dietetic care
- An increase in demand for Continuous Subcutaneous Insulin Infusion (CSII) 'pump' therapy, due to a change in PHARMAC funding criteria, has resulted in an increased demand for complex MNT and dietitian-led education (including advanced carbohydrate counting)
- People with diabetes are living longer and therefore are more likely to suffer with a number of nutrition-related medically complex co-morbidities e.g. advanced cardiovascular disease, chronic renal disease, gastroparesis etc.
- The obesity epidemic continues to drive up the incidence of Type 2 diabetes at an alarming rate and there are few District Health Board's (DHB) and Primary Healthcare Organisation's (PHO) across NZ providing adequate primary care-based dietetic services to meet this need for preventative programmes and personalised dietetic input (Diabetes SIG, 2013)

New Zealand registered dietitians are required to demonstrate their competence within the requirement of their Annual Practising Certificate (APC). The National Integrated Knowledge, Skills and Career Framework for Diabetes Dietitians is designed to be linked to individual Performance Review Processes (PRP) and support the achievement of learning objectives in the National Continuing Competency Programme (CCP) required at the annual application for an APC.

This framework is designed to provide guidance of suggested knowledge and skills required for dietitians to competently undertake their roles as part of the diabetes healthcare delivery service in order to improve outcomes and to reduce the occurrence of conflicting messages being given to people with diabetes. Diabetes Specialist Dietitians often operate with a high degree of autonomy with significant responsibility for the delivery of highly complex diabetes services, therefore the development of this framework is necessary to support the extended scope of practice in this specialised area of clinical dietetics and MNT.

1.3 Areas / Scope of Practice

The Dreyfus Model 1986 (Dreyfus HL, 1986) identified levels of proficiency as an effective basis for Knowledge and Skills Frameworks. The three stages, novice, proficient and expert reflect the development process. However for the National Integrated Knowledge, Skills and Career Framework for Diabetes Dietitians, the DSIG have adopted the following levels of practice: All Dietitians, Diabetes Dietitians, Diabetes Specialist Dietitians and Advanced Practitioner / Consultant Diabetes Dietitians

(NB: The Advanced Practitioner / Consultant Diabetes Dietitian level has been identified and included for future workforce development and planning, however knowledge and skills related to this level have not yet been specified for NZ dietitians and are therefore not detailed in this document).

As part of successful annual registration processes, all dietitians understand and have the ability to work within the wide-ranging sphere of influence of dietetics. They will be able to work autonomously, with practice based on sound evidence, in therapeutic roles with individuals and, more broadly, in health promotion and public health with both individuals and groups. The dietitian will demonstrate professional problem-solving skills where there is considerable variation in the presentation and health needs of service users and the setting for care.

Level 1: All Dietitians

Regardless of practice setting, all dietitians are required to work collaboratively with other health professionals and the person with diabetes to address their health needs. At all stages in life, people with diabetes require assistance from dietitians to enable them to self-manage their condition, and research shows that this is an on-going process. All dietitians need to be capable of applying generic diabetes nutrition related knowledge and skills to meet the health needs of these individuals.

Level 2: Diabetes Dietitians

Diabetes dietitians work frequently in the care of people with diabetes, and regularly develop specific diabetes related nutrition care plans. They are required to demonstrate broad and generalist knowledge in the dietetic management of diabetes and related conditions. They actively seek to develop their own diabetes related practice for the benefit of their clients, through integrating new knowledge obtained through their own professional development and continuing competency processes. The diabetes dietitian will demonstrate sound collaborative skills where there is a knowledge or skills deficit.

Level 3: Diabetes Specialist Dietitians

Diabetes specialist dietitians have developed expert knowledge and skills within all aspects of diabetes care, usually within a specialist diabetes care team. The diabetes specialist dietitian will be competent in an extended scope of practice to enable them to provide in-depth education for people with medically and socially complex diabetes in all diabetes related situations, particularly those at high risk for disease progression and complication development and/or those that require the support of an experienced or specialist Multi-Disciplinary Team (MDT). They will demonstrate an effective integration of therapy, practice and experience along with increasing degree of autonomy in their judgements and interventions for people with diabetes (National Diabetes Nursing Knowledge and Skills Framework, 2009). They will also provide appropriate support and mentoring for other practitioners (Ministry of Health, 2015).

Level 4: Advanced Practitioner / Consultant Diabetes Dietitian (NB: Not included in the current version of this framework)

The diabetes consultant dietitian demonstrates highly developed expert knowledge and skills within diabetes and related conditions, typically through additional experience and/or post-graduate education. They deliver improved outcomes for service users through innovative service delivery and the development of practice and research. The consultant dietitian demonstrates professional leadership through being an inspirational role model, the development and effective use of national and international networks through research, and the active development of a learning environment in the team.

NB: At the time of publication of this document, no formal accreditation process for Diabetes Specialist Dietitians and Advanced Practitioner Dietitians exists, however is currently being discussed and devised.

The following table shows suggestions of person specifications, typical practice settings, training requirements, and clinical practice examples for each level. **These are guidelines only. It is the responsibility of individual dietitians, and their workplace, to ensure adequate training and monitoring of skills to ensure dietitians are practicing safely and within their level of competency and specified title / job description.** This would be done in conjunction with their job description, years of clinical practice in a diabetes setting, time actively working with people with diabetes, qualifications, and clinical support networks across NZ that are available. The frameworks are designed with the intention of being flexible to cover the wide scope, job types and possible environments that dietitians consulting with people with diabetes could be working. It is acknowledged that this may need to vary based on job requirements.

	All Dietitians	Diabetes Dietitian	Diabetes Specialist Dietitian	Advanced Practitioner / Consultant Diabetes Dietitian
Person specifications	Current NZ Registered Dietitian	Current NZ Registered Dietitian Dietitians working as part of a specialty diabetes service using an interdisciplinary approach, whose role and focus is specific to the area and practice of diabetes, but have < 2 years full time (<3 years part time) experience in diabetes management	Current NZ Registered Dietitian Dietitians with >2 years full time (>3 years part time) experience working as part of a specialist diabetes service using an interdisciplinary approach, whose role and focus is specific to the area and practice of diabetes Dietitians able to demonstrate they have sound ability to work competently to the associated tasks and responsibilities of a diabetes specialist dietitian as described in this document	Current NZ Registered Dietitian Dietitians able to demonstrate highly developed expert knowledge and skills in diabetes care and related conditions, typically through extensive experience as a diabetes specialist dietitian and ongoing post-registration training and research in diabetes Evidence of professional leadership and an advanced level of clinical practice
Post Registration Education / Training Requirements	Work-based and self-directed learning in diabetes management Specific diabetes related training and/or job experience not essential, but would be recommended	Work-based and self-directed learning in diabetes management Individual annual learning goals/objectives with professional development goals that reflect a diabetes focus Formal and regular training and/or attending diabetes focused scientific meetings recommended Clinical supervision recommended with Diabetes Specialist	Work-based and self-directed learning in diabetes management Individual annual learning goals/objectives with professional development goals that strongly reflect a diabetes focus Formal and regular training and/or attending diabetes focused scientific meetings essential Clinical supervision recommended with senior specialist colleagues: Diabetes Specialist Dietitian, Clinical Nurse Specialist / Nurse	Work-based training and self-directed learning in advanced diabetes management Clinical supervision recommended with Nurse Practitioner / Consultant Endocrinologist

		Dietitian	Practitioner or Consultant Endocrinologist	
Examples of typical practice settings	Dietitians working in any healthcare setting with people with diabetes	<p>Dietitians working in primary health care organisations or private practice, with adequate and appropriate experience and skills in diabetes management, but no ongoing experience working within a specialist diabetes interdisciplinary team</p> <p>Dietitians working in small DHB's or satellite hospitals with limited diabetes specific hours and/or limited ability to extend skills in diabetes specialist dietitian areas of practice</p>	<p>Dietitians working in a secondary care specialist diabetes centre</p> <p>Dietitians working in primary care or private practice, who have previous experience in a specialist diabetes interdisciplinary team, and able to demonstrate an ongoing competence in the diabetes specialist dietitian skill set</p>	<p>Dietitians working in secondary care services as part of a specialist diabetes service using an integrated multidisciplinary approach</p> <p>Regional focus across primary and secondary care service providers</p>
Clinical Practice examples	<p>Pre diabetes and Type 2 - medically non-complex patients</p> <p>Educating general population and those with predictable health needs</p>	<p>People with Type 2 diabetes with increased complexity, multiple long-term conditions</p> <p>Educating those with predictable health needs and moderate risk / socially complex patients</p> <p>Medical Nutrition Therapy focused on carbohydrate (CHO) awareness for glycaemic control and vascular risk factors</p>	<p>Highly complex diabetes cases with care required from specialist diabetes care team as defined by national and/or local guidelines, for example:</p> <ul style="list-style-type: none"> • inpatients with high risk diabetes • managing insulin to carbohydrate ratio adjustments under a standing order • people with Type 1 diabetes • people on insulin pumps • CGMS interpretations with MDT • women with diabetes who are pregnant • children, adolescents and young adults with diabetes • elite athletes with diabetes • those with high risk co-morbidities or unusual diabetes e.g. cystic fibrosis related diabetes, MODY, mitochondrial diabetes <p>Lecturer in diabetes management</p>	<p>Managing highly complex diabetes caseload as part of a specialist multidisciplinary diabetes care team</p> <p>Deliver improved outcomes for service users through innovative evidence-based service delivery and the development of practice and research</p>

1.4 How can the National Integrated Knowledge, Skills and Career Framework assist Dietitians, Employers and People with Diabetes

The National Integrated Knowledge, Skills and Career Framework for Diabetes Dietitians will:

- Assist in the development of a range of transferable clinical skills which can be used in care delivery throughout a dietitian's career
- Minimise risk by ensuring dietitians, their colleagues and their employers know the standard of care required within diabetes care and are capable to provide that care
- Encourage dietitians to work in diabetes as it provides a pathway for professional development and career progression into a specialist area of practice
- Allow dietitians working in diabetes across all sectors and their managers to identify levels of additional knowledge, skills and training to guide professional development needs and practice requirements at generalist, specialist or advanced level of diabetes practice
- Guide the development of diabetes-related dietetics education programmes, Diabetes Special Interest Group study days, job descriptions and career pathways
- Ensure people with diabetes are being taught self- management skills by a dietitian providing the appropriate information. In the case of a diabetes specialist dietitian, that they have the appropriate knowledge and experience required to manage highly complex cases
- Provide a foundation for public accountability
- Support the development of Diabetes Specialist Dietitian positions across NZ and guide the extended scope of practice for those working with patients who have complex medical and social needs
- Respond to the Ministry of Health (2013b) intent to manage more people with diabetes in primary care, making it essential that PHO dietitians are appropriately skilled and managers are clear about the skill mix required
- Influence education and training in NZ for dietitians requiring further training and specialist skills in the management of diabetes and related conditions across the lifespan
- Promote better multidisciplinary communication and collaboration
- Contribute to greater recognition and validation of the work done by diabetes dietitians
- Provide a mechanism to measure outcomes and effectiveness when linked to quality indicators

2. How to use this framework

This framework is designed to provide guidance on suggested standards required for dietitians to competently and safely undertake their roles as part of high quality diabetes healthcare service delivery. It will contribute to the more specific competencies and indicators required to help guide, develop and improve competency and professional practice. The National Integrated Knowledge, Skills and Career Framework for Diabetes Dietitians will assist in making the links between how individuals develop and apply their knowledge and skills, specifically relating to the needs of the individual, and the team/organisation they work in. This will also highlight areas for professional and career development appropriate to the individual's level of responsibility, job description and level of experience.

The framework builds on the entry level competency requirements set out by the NZ Dietitians Board, acknowledging that all dietitians require a basic understanding of diabetes and diabetes management.

Dietitians are annually required to complete an individualised Continuing Competency Programme (MyCCP) through the NZ Dietitians Board, in order to obtain an Annual Practising Certificate (APC). This includes identification and completion of learning goals and professional development activities to ensure dietitians remain evidenced based

and clinically competent in their specific area of practice. This is in addition to (but ideally parallel with) individually developed Professional Development Plan (PDP) goals and activities for the year that are relevant to the organisation the dietitian works for. The framework can be used to help develop focused diabetes related goals and objectives specific to the dietitians area of practice, that can be used for both CCP and PDP.

Individual PDP and/or CCP processes and plans should be used to identify relevant training needs, the required course of action and a realistic timescale to obtain the identified skills. When preparing for PDP, the dietitian should review the framework and identify learning needs or opportunities for further knowledge or skills that may be required for the diabetes specific role they are currently working in (including those outlined in the lower competency domains). Professional development reviews or other means of appropriate evidence (e.g. peer review) will identify whether learning needs have been achieved. The dietitian/manager can use the comments section of the document to track progress and/or provide description of evidence that is available to demonstrate that the knowledge/skills have been obtained. This can be then transferred into the CCP programme as evidence for achieving the necessary points for APC, and/or used for other relevant personal development activities, for example career progression pathways. Access to professional development opportunities to develop and maintain the required level of expertise and competency is pertinent and encouraged.

This framework is intended to provide guidance to individual learning needs, not as a sole guide to specific remuneration levels and/or banding according to individual or organisational employment agreements. It is also not intended to be used for the purposes of triaging or generating referral pathway criteria.

Individual dietitians working in more isolated environments that may not have access to a specialist diabetes care team may use this as a means of ensuring best possible care and advice is being given according to their scope of practice and competency level. It can be used as a guideline for supported practice by less experienced diabetes dietitians and with a strong recommendation to liaise with more experienced diabetes specialist dietitians locally or nationally if clinically necessary and appropriate.

3. Summary

This framework is progress towards ensuring that all dietitians working with people with diabetes are meeting minimum standards required to competently undertake their roles in order to ensure people with diabetes are receiving the best possible care.

This framework will provide dietitians with a clear outline of the knowledge and skills required to demonstrate their competency to provide care for people with diabetes (at their level of clinical activity), and a process to follow that will allow dietitians to be recognised professionally for their specialist status. In addition, it will support dietitians to plan their careers in a structured way and provide guidance and support for dietitians and their managers to plan ongoing continuing professional development activities and meet training requirements.

Section 1: Pathophysiology, Epidemiology and Clinical Diabetes Guidelines

Competency Statement:

- Demonstrate familiarity with pathophysiology, epidemiology and clinical guidelines consistent with diabetes care provider level

Level	Objectives	Comments
Pathophysiology		
All Dietitians	<ol style="list-style-type: none"> 1. Identify the differences, causes, risk factors and symptoms of pre-diabetes, Type 1 diabetes, Type 2 diabetes and Diabetes in Pregnancy (DIP), including GDM 2. Describe normal glucose metabolism and signs and symptoms of hyperglycaemia and hypoglycaemia 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Outline the pathophysiology of Type 1 diabetes, Type 2 diabetes and DIP including GDM, and the relationship of GDM to the development of Type 2 diabetes 2. Explain the relationship between hyperglycaemia and the development of diabetes related complications 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate advanced knowledge of diabetes pathophysiology to direct nutritional and diabetes care delivery 2. Understand the pathophysiologic basis of Diabetic Ketoacidosis (DKA), and Hyperosmolar Hyperglycaemic State (HHS) / HONK 	
Epidemiology		
All Dietitians	<ol style="list-style-type: none"> 1. Understand diabetes epidemic / population with local, national and international prevalence 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Identify groups of people at risk of developing diabetes and those at risk of developing diabetes-related complications and prioritise care appropriately 2. Assess the needs and demographics of the local diabetes population and prioritise care for those with increased complexity medical and/or social needs 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Able to participate in community screening plans / events 2. Assess the needs and demographics of the local diabetes population and prioritise care for those with high complexity medical and/or social needs 	
Clinical Practice Guidelines		
All Dietitians	<ol style="list-style-type: none"> 1. State how to access and understand evidenced based nutritional recommendations and clinical practice guidelines for diabetes, including NZ Dietitians Standards of Nutritional Care for Type 1, Type 2 Diabetes and DIP 	
Diabetes Dietitians (In addition to All)	<ol style="list-style-type: none"> 1. Explain how to implement evidence-based nutritional recommendations and clinical practice guidelines to provide diabetes education in a variety of patient care settings 	

Dietitians)	<ol style="list-style-type: none"> 2. Explain how clinical practice guidelines can be used to evaluate local services 3. Apply knowledge of current established criteria for diagnosing diabetes 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Serve as an expert resource for evidence-based nutritional recommendations and clinical practice guidelines for implementation in a variety of complex patient care settings 2. Demonstrate ability to critically appraise current diabetes-related research and apply to dietetic practice 3. Evaluate nutritional care delivery according to appropriate clinical practice guidelines 	

Section 2: Medical Nutrition Therapy for Diabetes Management

Competency Statement:

- Provide people with diabetes with the up-to-date and evidence based principles of MNT so that they can make informed decisions regarding their nutritional intake to influence their glycaemic control and vascular risk factors

Level	Objectives	Comments
Medical Nutrition Therapy		
All Dietitians	<ol style="list-style-type: none"> 1. Demonstrate knowledge of the different macronutrients, their relationship to insulin action and their effect on blood glucose 2. Discuss the available evidence-based nutrition guidelines for healthy eating, including the recommendations for a focus on whole unprocessed foods 3. Demonstrates understanding of carbohydrate awareness 4. Identify carbohydrate content of common foods 5. Effectively communicate up- to-date and evidenced based basic nutritional principles for diabetes, and risk reduction of diabetes-related complications 6. Demonstrate an understanding of the different dietary approaches to the management of Type 1 and Type 2 diabetes, and the benefits and risks associated with these 7. Demonstrate an understanding of Glycaemic Index (GI) 8. Identify the GI of common foods 9. Describe how to evaluate food products from information on nutrition information panels using local/national guidelines 10. Demonstrate ability to perform a physical assessment and anthropometrics, including signs of malnutrition in people with diabetes 11. Discuss the role of sugar alternatives / artificial sweeteners, their differences and recommended consumption 12. Provide education to people with diabetes on completing a food record and carrying out dietary self-assessments 13. Demonstrate ability to appropriately prescribe vitamin and mineral supplements, including the use of enteral and oral nutrition supplements, in the context of diabetes related medical nutrition therapy 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate ability to evaluate a physical assessment, laboratory and diagnostic test results, and provide appropriate MNT to people with diabetes with increased complexity medical and/or social needs 2. Demonstrate ability to use self-monitoring blood glucose (SMBG) results to assess the impact of food intake, physical activity and medications on blood glucose levels 3. Explain interaction of food, activity and medication for optimum glycaemic control by providing guidance on adjusting the timing and content of meals and snacks according to diabetes medications and/or insulin to prevent hyper 	

	<p>and hypoglycaemia</p> <ol style="list-style-type: none"> 4. Describe various carbohydrate counting models and principles, and their application to practice 5. Demonstrate how to personalise MNT, including monitoring outcomes and adjusting therapy, in conjunction with the diabetes care team 6. Discuss the role of “diabetic food” (e.g. sugar free or low sugar products) and its potential unnecessary use in diabetes management 7. Discuss nutrition self-management education as a framework to guide people with diabetes toward successful management of personal meal plans 8. Explain the effect of alcohol on carbohydrate metabolism and identify safe intake levels for people with diabetes according to national alcohol guidelines 	
<p>Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)</p>	<ol style="list-style-type: none"> 1. Demonstrate a detailed understanding and knowledge of diabetes associated with complex situations such as childhood and youth (including adolescents / young adults), pregnancy, older adults, insulin pump therapy, inpatients, short-term and long-term complications, co-morbidities including coeliac disease, eating disorders, and provide MNT as appropriate 2. Demonstrate ability to use comprehensive knowledge of diabetes to provide nutritional and clinical leadership and expertise to others in the specialist diabetes care team 3. Demonstrate ability to calculate the appropriate macronutrient and micronutrient intake to meet individual requirements in order to provide MNT for people with diabetes who have high complexity medical and/or social needs 4. Demonstrate how to personalise complex MNT, including monitoring outcomes and adjusting therapy, in conjunction with specialist diabetes care team 5. Demonstrate extensive knowledge of carbohydrate content of a wide variety of foods including use of carbohydrate factors to calculate carbohydrate content when the amount is unknown 6. Describe the effect of protein and fat metabolism on blood glucose levels for people who are counting carbohydrate and/or using insulin pump therapy, and how to alter Insulin:Carbohydrate ratios (ICRs) / insulin sensitivity factors (ISF) appropriately 7. Demonstrate ability to assess and advise on Insulin:Carbohydrate ratios and ISF / correction factors (CF) 8. Demonstrate how to apply the concepts of advanced carbohydrate counting principles to assess accuracy of carbohydrate intake, and advise on specific carbohydrate intake and meal-based quick-acting insulin dosing in those on Multiple Daily Injection (MDI) insulin regimens or insulin pump therapy with an aim to match quick acting insulin with total carbohydrate intake 9. Demonstrate ability to use SMBG records and/or Continuous Glucose Monitoring (CGM) results to adjust Insulin:Carbohydrate ratios and ISF appropriately, with specific regard to effect of composition of meals, timing of meals, alcohol intake etc 10. Demonstrate and understand that the requirements of Insulin:Carbohydrate ratios may differ at different times of the day 11. Interpret research regarding complimentary medicines to determine 	

	possible food-drug interactions	
	12. Provide self-management / structured nutritional education to prevent and / or delay the development of long term complications of diabetes	
Obesity		
All Dietitians	<ol style="list-style-type: none"> 1. Discuss relationship of obesity and its relevance as a marker for increased risk of chronic diseases e.g. pre-diabetes, diabetes and vascular disease 2. Explain the role of weight management as first line therapy in management of Type 2 diabetes and metabolic syndrome 3. Describe benefits of achieving ideal body weight in terms of improved glycaemic and metabolic control 4. Demonstrate ability to use Body Mass Index (BMI) and waist circumference to set achievable weight loss goals 5. Demonstrate ability to provide individualised weight loss education appropriately to overweight/obese people with diabetes from different ethnicities using a multifaceted approach 6. Understand and describe surgical procedures to treat obesity and the benefits and risks associated with these 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate ability to recognise and address eating behaviours that contribute to overweight / obesity 2. Describe appropriate dietetic support, specific to their diabetes management, for those preparing for weight loss surgery 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate ability to identify obesity in medically complex cases e.g. children with Type 1 diabetes and tailor specialist dietetic advice as appropriate 2. Demonstrate ability to manage weight loss in medically complex cases by using knowledge of MNT for diabetes and weight loss management and prioritising as necessary 3. Demonstrate ability to provide dietary support specific to their diabetes management, for people who have undergone weight loss surgery 	
Physical Activity		
All Dietitians	<ol style="list-style-type: none"> 1. Understand the importance of advising people with diabetes to seek medical clearance before commencing physical activity 2. Describe the benefits and importance of physical activity in diabetes prevention and management of Type 2 diabetes 3. Define how to assess physical activity levels of people with diabetes and facilitate a safe personal activity plan to reduce risk factors where appropriate 4. Recognise the importance of healthy eating, balanced food intake, timing of meals and the importance of adequate fluid intake when performing physical activity 5. Describe factors that may cause either hyperglycaemia or hypoglycaemia during physical activity and strategies for prevention 6. Understand and refer as appropriate to other community based exercise programmes e.g. Green Prescription 	

<p>Diabetes Dietitians (In addition to All Dietitians)</p>	<ol style="list-style-type: none"> 1. Explain physiological responses that occur during physical activity at different blood glucose levels for all types of diabetes and recognise when exercise is not appropriate 2. Demonstrate ability to work in partnership with people with non-complex medical and/or social needs to develop an individualised evidenced based physical activity plan (e.g. exercise timing, intensity, appropriate shoes, and prevention of hypoglycaemia) 3. Describe how to assist people with diabetes in development and evaluation a physical activity plan based on individual needs, conditions and preferences 	
<p>Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)</p>	<ol style="list-style-type: none"> 1. Demonstrate ability to work in partnership with people with diabetes who have complex medical and / or social needs to develop an individualised evidenced based physical activity plan taking into consideration management of complications, SMBG, dietary intake and meal frequency 2. Demonstrate knowledge of the effects of low-intensity exercise, and the necessary adjustments in carbohydrate and/or insulin requirements in those on MDI insulin regimens or using insulin pump therapy 3. Demonstrate knowledge of the effects of moderate-intensity exercise, and the necessary adjustments in carbohydrate and/or insulin requirements in those on MDI regimens or using insulin pump therapy 4. Demonstrate knowledge of the effects of high-intensity exercise, and the necessary adjustments in carbohydrate and/or insulin requirements in those on MDI insulin regimens or using insulin pump therapy 5. Discuss characteristics of diabetes medication and how to advise, in conjunction with specialist diabetes care team, on adjustment of medication and/or carbohydrate intake to optimise an individual's blood glucose control during and post exercise across the lifespan e.g. children, teenagers and adults 6. Discuss MNT specific to those involved in high level competitive sports to maximise their performance and maintain glycaemic control 7. Demonstrate ability to use SMBG records and/or CGM results to adjust Insulin:Carbohydrate ratios and ISF appropriately, with specific regard to effect of exercise 8. Demonstrate ability to recommend safe adjustments of prandial insulin and intake and timing of palatable high carbohydrate snacks as appropriate to prevent exercise-induced hypoglycaemia, in collaboration with the specialist diabetes care team 	

Section 3: Clinical Diabetes Management

Competency Statement:

- Demonstrate ability to work collaboratively with others in the diabetes care team for the benefit of patient care
- Demonstrate knowledge of short-term complications of diabetes and provide people with specific MNT to prevent and treat these complications where relevant

Level	Objectives	Comments
Care Planning and Collaboration		
All Dietitians	<ol style="list-style-type: none"> 1. Identify potential barriers to effective diabetes self-management including: cognitive and physical limitations, literacy, lack of support systems and negative cultural influences, and plan strategies to overcome these 2. Explain how to facilitate access to community resources for diabetes related advice and structured education as appropriate 3. Explain the importance of people with diabetes attending routine appointments 4. Understand their own role and the roles of other healthcare professionals involved in the management of people with diabetes and how they overlap and complement each other 5. Recognise the need for inter-professional communication and collaboration with the MDT 6. Recognise the importance of referral and refer appropriately to specialist diabetes dietitians and/or other members of the diabetes care team for further guidance and/or input 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate how to work in partnership with people with increased complexity medical and/or social needs to achieve and maintain optimal blood glucose control and nutritional adequacy in conjunction with their diabetes care team 2. Apply proven models of empowerment and care planning methodology to support effective diabetes self-management 3. Discuss how to communicate effectively with other members of the diabetes care team 4. Describe the care pathway and related providers of local diabetes community services, and facilitate referrals for diabetes care and structured self-management education 5. Discuss how to, and the importance of, working collaboratively with other members of the diabetes care team to support people with diabetes 6. Facilitate coordination and communication with primary care providers, diabetes care team and other members of the person with diabetes network as appropriate 	
Diabetes Specialist Dietitians (In addition to All Dietitian &	<ol style="list-style-type: none"> 1. Demonstrate strategies required to lead the dietetic focus of a person with diabetes with complex medical and/or social needs, in conjunction with a specialist diabetes care team, to achieve and maintain optimal glucose control and nutritional adequacy 	

Diabetes Dietitians)	<p>2. Demonstrates ability to advocate for nutrition care to other members of the diabetes care team to optimise diabetes management</p> <p>3. Demonstrate ability to use comprehensive knowledge of diabetes to provide nutritional and clinical leadership to others in the diabetes care team locally and nationally</p> <p>4. Demonstrate ability to provide collaborative care and effective inter-professional communication to ensure all people involved in the person with diabetes care work towards the same goals to ensure consistent advice is given to the patient and the family/whanau</p>	
Monitoring of Glycaemic Control		
All Dietitians	<p>1. Demonstrate awareness of definition and target levels of HbA1c</p> <p>2. Recognise the importance of frequent blood glucose testing and reinforce agreed care plan from diabetes related care team and assist people to develop appropriate monitoring schedule to encourage self-management</p>	
Diabetes Dietitians (In addition to All Dietitians)	<p>1. Explain relevance of HbA1c and target levels including knowledge of when HbA1c is not relevant or reliable</p> <p>2. Define rationale for target blood glucose ranges and verify patient's self-monitoring of blood glucose technique if required</p> <p>3. Demonstrate ability to work with diabetes care team to utilise self-monitoring of blood glucose results to advise on and optimise treatment interventions, according to evidenced based guidelines and person with diabetes goals</p> <p>4. Understand that the option of CGM exists for a specific group of people with Type 1 diabetes and refer to a specialist multidisciplinary diabetes care team, including diabetes specialist dietitians, for analysis and interpretation of results, and advice on nutrition related care plans</p>	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<p>1. Understand appropriate HbA1c targets across the lifespan and be able to use these to guide dietetic management in people with diabetes with highly complex medical and/or social needs</p> <p>2. Demonstrate the use of blood glucose monitoring devices and discuss the rationale for appropriate SMBG schedules according to the person with diabetes medication, dietary intake and physical activity levels</p> <p>3. Demonstrate ability to work with specialist diabetes care team to utilise self-monitoring of blood glucose results to advise on and optimise treatment interventions, according to evidenced based guidelines and person with diabetes goals</p> <p>4. Demonstrate ability to understand CGMS records and modify dietary intake appropriately to achieve and maintain glycaemic goals in people with diabetes including those on insulin or insulin pump therapy</p> <p>5. Demonstrate ability to be able to advise on how to check ketone levels and when this is necessary, and provide advice for treatment of ketones if appropriate</p>	
Hypoglycaemia		
All Dietitians	<p>1. State the definition, causes, signs, symptoms and prevention strategies for hypoglycaemia according to local guidelines</p> <p>2. Define mild, moderate and severe hypoglycaemia and describe how to</p>	

	<p>implement treatments according to local guidelines</p> <ol style="list-style-type: none"> 3. Recognise the need to document and report episodes of hypoglycaemia and refer for medication review as appropriate 4. Discuss the effect of exercise and increased risk of hypoglycaemia 5. Discuss the effect of alcohol on liver and increased risk of hypoglycaemia 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Describe the pathophysiologic basis of hypoglycaemia and hypoglycaemia unawareness 2. Recognise how the symptoms of hypoglycaemia may change from one person to another and within individuals over a period of time 3. Discuss the legal implications and safety aspects of driving a motor vehicle and using heavy equipment when at risk of hypoglycaemia 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Identify those at risk of hypoglycaemic unawareness and strategies for managing blood glucose to reduce risk of hypoglycaemia in people with diabetes with complex medical and/or social needs 2. Discuss the cause, risk, signs, symptoms and management of nocturnal hypoglycaemia 3. Discuss the risk of prolonged hypoglycaemia in older adults 4. Discuss the potential for fear of hypoglycaemia with tightening glycaemic control for both the person with diabetes and their family/whanau 5. Discuss the treatment of severe hypoglycaemia in Type 1 diabetes including the use of glucagon 6. Discuss the decreased cognition that occurs in the immediate recovery period and the need for supportive education 	
Diabetic Ketoacidosis (DKA) and Hyperosmolar Hyperglycaemic State (HHS)		
All Dietitians	<ol style="list-style-type: none"> 1. Identify risk factors for those at risk of developing DKA 2. Identify risk factors for those at risk of developing HHS/HONK 3. Know the difference between nutritional ketosis and diabetic ketoacidosis 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. State causes and signs and symptoms of DKA / HHS / HONK 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Recognise that recurring DKA / HHS may be a sign of a social or psychological problem and discuss strategies for addressing such problems 	
Hyperglycaemia		
All Dietitians	<ol style="list-style-type: none"> 1. State the definition, causes, signs, symptoms, treatment and prevention strategies for hyperglycaemia 2. Understand the need to refer/consult as necessary for medical assessment/treatment of underlying cause of hyperglycaemia 	
Diabetes	<ol style="list-style-type: none"> 1. Discuss the influence of hyperglycaemia on development of short-term and long-term diabetes complications 	

Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 2. Explain strategies for working in partnership with person with diabetes and the diabetes care team to develop appropriate nutrition related management plans for reducing hyperglycaemia 3. Discuss the importance of working in collaboration with people with diabetes at risk of hyperglycaemia to improve recognition of hyperglycaemia 4. Understand and explain the “dawn phenomenon”, and strategies to overcome it 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Describe the various intervention studies demonstrating the benefits and risks associated with intensive glycaemic control e.g. Diabetes Control and Complications Trial (DCCT), United Kingdom Prospective Diabetes Study (UKPDS), ACCORD 2. Discuss the effect of counter-regulatory hormones on blood glucose levels 3. Identify medications that may cause hyperglycaemia (e.g. steroids) and advise as appropriate in conjunction with specialist diabetes care team 4. Demonstrate ability to implement specialised diabetes MNT across the lifespan e.g. children, adolescence/young adults and adults to optimise an individual’s blood glucose control and reduce hyperglycaemia through specialised strategies e.g. advanced carbohydrate counting, insulin to carbohydrate ratios etc. in conjunction with specialist diabetes care team 5. Demonstrate how to work in collaboration with people with diabetes at risk of hyperglycaemia to improve recognition of hyperglycaemia 	
Management During Concurrent Illness		
All Dietitians	<ol style="list-style-type: none"> 1. Recognise the effect of concurrent illness on glycaemic control 2. Describe the need for regular testing of blood glucose levels during periods of concurrent illness 3. Recognise the critical importance of never omitting insulin administration in Type 1 diabetes when the person has a concurrent illness and refer people to their specialist diabetes care team for further guidance and/or input 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Describe basic guidelines for people with diabetes on sick day management 2. Discuss strategies for maintaining sufficient carbohydrate and fluid when appetite is poor 3. Describe need for regular testing for ketones during an acute illness when hyperglycaemia may be present, and when this may or may not be appropriate 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Recognise the impact on blood glucose of different types of illness such as fever or malabsorption 2. Recognise need to drink enough water/liquid for hydration and decrease activity when blood glucose is high 3. Demonstrate ability to assess malnutrition and the need for nutritional supplements and prescribe as appropriate 4. Discuss need to adjust insulin according to blood glucose levels and presence of ketones in conjunction with the specialist diabetes care team 5. Contribute to the local/national guidelines for insulin therapy and 	

	carbohydrate management during sick days	
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Section 4: Diabetes Medication

Competency statement:

- Demonstrate knowledge of the different types of blood glucose-lowering agents for individuals with diabetes

Level	Objectives	Comments
Diabetes Tablets and Injectable Insulin Therapy		
All Dietitians	<ol style="list-style-type: none"> 1. Demonstrate basic knowledge of PHARMAC funded blood glucose lowering agents and their basic mode of action in the management of diabetes 2. Understand the importance of ensuring people with diabetes obtain and take prescribed medications on an ongoing basis 3. Demonstrate an awareness of the importance of reporting identified problems appropriately and refer as required 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Describe the common oral hypoglycaemic agents (both funded and unfunded), mode of action and common side effects 2. Describe insulins commonly used and the different modes of action including timing and side effects 3. Describe situations where current medication and/or insulin therapy may need to be titrated or additional medication initiated and refer appropriately 4. Demonstrate ability to maintain knowledge of current and new diabetes medications 5. Describe the risk of weight gain when commencing insulin therapy and how to minimise this 6. Reinforce to people with diabetes to use safe sharps disposal and correct insulin storage 7. Identify risks, benefits and appropriate use of over-the-counter (OTC) nutritional medications and supplements 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate a broad knowledge and understanding of medications used in diabetes and related conditions, across the lifespan, and its relationship to food, physical activity and SMBG guidelines in the management of diabetes in the context of medical nutrition therapy 2. Demonstrate knowledge of the impact of concurrent complex medical conditions on prescribing decisions when providing input into specialist case reviews 3. Demonstrate a detailed understanding and knowledge of more complex medication issues throughout the life span (e.g. children, pregnancy, elderly, those with co-existing medical conditions) and demonstrate the ability to educate appropriately taking these factors into consideration 4. Work in collaboration with specialist diabetes care team to develop algorithm or protocol based medication adjustments for changes in timing of meals, carbohydrate intake and/or participation in physical activity 5. Recognise the influence of lipohypertrophy and lipoatrophy on insulin action and blood glucose levels and the need to reinforce education regarding correct injection site selection and rotation technique if appropriate 	

	6. Contribute to local and national guidelines related to diabetes medications and associated medical nutrition therapy	
Insulin Pump Therapy		
All Dietitians	1. Recognise the importance of referring people with diabetes on pump therapy to a diabetes specialist dietitian for further advice and/or input and explain how to do this	
Diabetes Dietitians (In addition to All Dietitians)	1. Understand that the option of insulin pump therapy exists for a specific group of people with Type 1 diabetes and refer to a specialist multidisciplinary diabetes care team, including diabetes specialist dietitians, for ongoing care	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<p>1. Discuss differences in delivery of insulin for those with diabetes e.g. MDI versus insulin pump therapy</p> <p>2. Demonstrates ability to teach advanced carbohydrate counting principles and work with people with Type 1 diabetes and their specialist diabetes care team to calculate Insulin:Carbohydrate Ratios and ISF in both preparation for insulin pump therapy and those with an existing pump</p> <p>3. Demonstrate ability to use data provided by person with diabetes such as SMBG records, or CGMS, to understand and advise on insulin pump interventions required</p> <p>4. Work in collaboration with specialist diabetes care team to advise people with diabetes on titration of insulin basal rates and use of advanced bolus options demonstrating an in-depth understanding of principles of insulin dose adjustment and the relationship to the current dietary intake</p> <p>5. Demonstrate ability to assess a person with diabetes suitability for an insulin pump according to PHARMAC criteria alongside the specialist diabetes care team or pump MDT</p> <p>6. Demonstrate working knowledge of the main differences in insulin pumps available (both funded and unfunded)</p> <p>7. Demonstrate knowledge of the features of insulin pumps, including advanced features, and demonstrate how to use these</p> <p>8. Discuss the practical knowledge and skills required for insulin pump therapy in adults e.g. optimum injection techniques and insulin pump use including the need for short fine needles and infusion sets, rotating insulin injection / infusion sites, inspecting injection / infusion sites, correctly monitoring SMBG / CGM technique, frequency of SMBG / CGM and interpretation / action</p>	

Section 5: Specific Medical Nutritional Therapy Needs Across the Lifespan

Competency Statement:

- Provide people with diabetes across the lifespan with up-to-date and evidence based principles of MNT so that they can make informed decisions regarding their nutritional intake

Level	Objectives	Comments
Diabetes in Pregnancy - Gestational Diabetes Mellitus (GDM)		
All Dietitians	<ol style="list-style-type: none"> 1. Demonstrate knowledge of Ministry of Health's "<i>Food & Nutrition Guidelines for Pregnant Women</i>" without diabetes including recommendations for food safety 2. Recognise the need for and access appropriately the guidance and expertise of specialist diabetes care team members, including diabetes specialist dietitians, regarding the nutritional needs of all women diagnosed with GDM 3. Recognise the appropriate advice for pregnant non-diabetic women on healthy eating for pregnancy and for those at risk of developing gestational diabetes 4. Discuss the recommended personalised weight gain and appropriate increase in calories during pregnancy 5. List the important macronutrients and micronutrients intake for all pregnant women, and prescribe as appropriate 6. Define strategies to prevent or reduce the risk of developing diabetes post-partum such as physical activity, healthy eating and weight management and strategies to reduce vascular risk factors such as smoking, hypertension and dyslipidaemia 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Define gestational diabetes and recognise the diagnostic criteria 2. Understand the importance of educating and providing support to women with pre-diabetes or at high risk of gestational diabetes on the following topics: important nutrients to include when planning meals, nutritional adequacy in pre-GDM, and the impact of the diagnosis of GDM on mother and baby 3. Discuss the possibility of diabetes with future pregnancies, encourage healthy eating and carbohydrate management before/early in pregnancy 4. Demonstrate knowledge of artificial sweeteners safe for use during pregnancy 5. Refer women diagnosed with GDM to a specialist multidisciplinary diabetes care team, including diabetes specialist dietitians, for ongoing care as per local guidelines 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Describe the pathophysiology of gestational diabetes 2. Describe the effects of the gestational state, including symptoms of hyperglycaemia and risks to mother and baby of potential adverse outcomes 3. Discuss the impact of the diagnosis of gestational diabetes on the mother and strategies to help her to come to terms with the diagnosis 	

	<ol style="list-style-type: none"> 4. Demonstrate ability to implement MNT appropriate to women with GDM, including adequate calorie intake, and recommendations for minimum carbohydrate intake and distribution according to requirements 5. Describe the pathophysiology of adequate calorie and carbohydrate intakes in terms of glucose, fatty acids and ketone metabolism 6. Demonstrate knowledge of glycaemic goals and SMBG targets specific to diabetes in pregnancy 7. Recognise the need for intensive monitoring and educate the mother to use blood glucose monitoring to modify nutritional intake and physical activity levels 8. Demonstrate ability to collaborate with the mother and specialist multidisciplinary diabetes care team to develop strategies for deciding when Metformin and/or insulin is required 9. Develop an action plan to ensure post-partum follow-up with the specialist diabetes care team or General Practitioner (GP) 	
Diabetes in Pregnancy - Pregnancy in Pre-existing Diabetes		
All Dietitians	<ol style="list-style-type: none"> 1. Recognise the need for and access appropriately the guidance and expertise of specialist diabetes care team members, including diabetes specialist dietitians, for all women with diabetes in pregnancy, including post-partum care 2. Identify the possible outcomes for baby and mother if glycaemic control is poor and the need to refer as appropriate to specialist services 3. List the important nutrients to include when planning meals pre-conception, and during and after pregnancy, and prescribe as appropriate 4. Discuss the recommended personalised weight gain and appropriate increase in calories during pregnancy 5. Discuss nutritional advice appropriate post-pregnancy for breastfeeding and a healthy weight 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Recognise that nutrition plays a role in the management of blood glucose as well as nourishment for mother and baby and recognise the need for altered dietary requirements 2. Discuss the importance of education on avoiding hypoglycaemia when breastfeeding for women with pre-existing diabetes remaining on diabetes medications 3. Refer women with pre-existing Type 1 or Type 2 diabetes to a specialist multidisciplinary diabetes care team, including diabetes specialist dietitians, for ongoing care 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Discuss the effects of DIP, the effects of pregnancy on blood glucose control and diabetes-related complications 2. Discuss the importance of achieving glycaemic targets prior to and during pregnancy and develop a care plan (including carbohydrate distribution) to increase the chance of having a successful pregnancy 3. Demonstrate ability to provide education required for prevention and treatment of hypoglycaemia and sick day management, including management of hyperemesis 	

	<p>4. Demonstrate ability to understand CGMS records and modify dietary intake appropriately to achieve and maintain glycaemic goals in people with diabetes including those on insulin or insulin pump therapy</p> <p>5. Demonstrate ability to teach advanced carbohydrate counting to women with Type 1 diabetes, on MDI and insulin pump therapy, and individualised carbohydrate awareness plans for those with Type 2 diabetes</p>	
Children and Adolescents with Type 1 DM and Type 2 DM		
All Dietitians	<p>1. Describe the importance of age appropriate healthy eating to maintain growth percentile lines</p> <p>2. Describe the role of macronutrients in maintaining growth, including protein and carbohydrate, and corresponding effect on blood glucose levels in children with diabetes</p> <p>3. Recognise that dietary goals should be self-selected and negotiated in collaboration with the child, family/whanau and diabetes care team</p> <p>4. Recognise the importance of referral and refer appropriately to the specialist multidisciplinary diabetes care team, including diabetes specialist dietitians, for ongoing care</p> <p>5. Demonstrate appropriate skills for working with young people including motivational interviewing techniques and self-management planning</p>	
Diabetes Dietitians (In addition to All Dietitians)	<p>1. Recognise changes in weight patterns and assess total energy intake, physical activity and obesity in children/youth at risk of developing pre-diabetes and / or Type 2 diabetes</p> <p>2. Discuss the importance of establishing regular meal patterns and develop a staged approach to positive dietary changes to prevent children and adolescents developing Type 2 diabetes</p> <p>3. Recognise the importance of referral and refer children and young people diagnosed with diabetes to a specialist multidisciplinary diabetes care team, including diabetes specialist dietitians, for ongoing care</p>	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<p>1. Describe appropriate macronutrient and micronutrient requirements to support optimal growth for a child or adolescent with diabetes based on their age, weight and activity level</p> <p>2. Demonstrate ability to individualise food intake and diabetes medication (insulin / tablets) in relation to the child's age and lifestyle and appropriate medical nutrition therapy principles</p> <p>3. Demonstrate the ability to consider the existing food pattern and liaise with the specialist multidisciplinary diabetes care team on an appropriate insulin / tablet profile</p> <p>4. Demonstrate ability to implement best-practice guidelines on the distribution of carbohydrate to prevent hypoglycaemia and hyperglycaemia in young people</p> <p>5. Demonstrate ability to provide education on adjusting insulin and carbohydrate to enable safe participation in both general physical activities and specific sporting events</p> <p>6. Demonstrate ability to recognise and address age-related problems such as toddler food refusal, peer pressure, fast foods and food fads, religious and cultural influences, omission of insulin, insulin abuse and hypoglycaemia</p>	

	<p>7. Demonstrate ability to perform age appropriate assessments e.g. HEADSS assessment</p> <p>8. Recognise changes in weight patterns and assess total energy intake, physical activity and obesity in children / adolescents / young adults with Type 1 and Type 2 diabetes</p> <p>9. Discuss when it is appropriate to design a suitable age-appropriate weight-reducing programme for a growing child</p> <p>10. Discuss strategies to educate school and college personnel, faith / community leaders, sports leaders, etc</p> <p>11. Describe the specific age related diabetes education that is necessary during the transition period including contraception, safe sex, alcohol and drugs</p> <p>12. Demonstrate ability to teach carbohydrate counting to the child / adolescent with diabetes and their family / whanau, at all stages of diabetes</p> <p>13. Recognise the practical knowledge and skills required for insulin pump therapy in children and adolescents e.g. optimum injection techniques and insulin pump use including the need for short fine needles and infusion sets, rotating insulin injection / infusion sites, inspecting injection / infusion sites, correctly monitoring SMBG / CGM technique, frequency of SMBG / CGM and interpretation / action</p>	
Older Adults and Diabetes, and People with Diabetes Living in Care Facilities		
All Dietitians	<p>1. Recognise that people in institutions do not have direct control over their eating patterns and availability of food, and discuss the impact of this on diabetes management</p> <p>2. Discuss how other factors such as poor dentition, weight loss, lack of appetite, poor eyesight or dementia can affect diabetes management</p> <p>3. Recognise the need for and access appropriately the guidance and expertise of other specialist diabetes care team members, including diabetes specialist dietitians, regarding the nutritional needs of older adults, including those living in care facilities</p>	
Diabetes Dietitians (In addition to All Dietitians)	<p>1. Demonstrate ability to provide appropriate MNT to older adults with consideration for all existing medical conditions and current care plan goals using a multidisciplinary approach</p> <p>2. Describe nutrition related recommendations for older people with diabetes and the relationship to existing malnutrition or risk of malnutrition</p> <p>3. Demonstrate ability to implement appropriate food first approach and/or nutritional supplements in people who are malnourished, and understand the importance of maintaining appropriate carbohydrate and fat intake</p> <p>4. Discuss potential for diabetes related medication side effects (such as B12 deficiency, gastrointestinal upset and weight loss with Metformin) and the impact of this</p> <p>5. Understand the risk of hypoglycaemia and the associated potential for adverse events such as falls</p> <p>6. Describe strategies required to assess the educational needs of older people and select and use appropriate education methods and resources</p>	
Diabetes	1. Demonstrate ability to adjust glycaemic targets for older people in	

Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<p>conjunction with specialist diabetes care team appropriately</p> <ol style="list-style-type: none"> Describe the increased risk of hypo-unawareness or DKA/HHS in older people and be able to implement relevant preventative strategies Demonstrate ability to assess the educational needs of older people and select and use appropriate education methods and resources Understand training needs of all staff including caterers working with people with diabetes in care facilities and provide education sessions as appropriate Discuss changes in guidelines and recommendations to diabetes medical nutrition therapy for older adults at end of life care 	
Managing Diabetes in Hospital (Inpatient Care)		
All Dietitians	<ol style="list-style-type: none"> Recognise the need for and access appropriately the guidance and expertise of other specialist diabetes care team members, including diabetes specialist dietitians, regarding the nutritional needs of in-patients with diabetes in all clinical settings Understand the importance of appropriate intervention to ensure adequate nutrition and fluids to maintain blood glucose control Discuss the need for regular meals and snacks as appropriate to optimise glycaemic control Discuss the importance of undertaking a nutritional assessment for in-patients with diabetes, developing a care plan appropriate to their nutrition diagnosis, providing nutritional support (e.g. fortified foods/supplements) where necessary and reviewing outcomes Recognise the need to provide appropriate nutritional therapy to meet the immediate healthcare needs of people after a new diagnosis of Type 1 or Type 2 diabetes Calculate nutritional requirements for in-patients with diabetes requiring enteral feedings and initiate/monitor as required Demonstrate ability to refer to outpatient dietitian services for follow-up as per local guidelines and referral processes 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> Contributes to the development of patient resources related to the general dietary management of diabetes in an acute setting where appropriate Participates in family/whanau meetings and multidisciplinary team meetings for people who have increased complexity social / healthcare needs Demonstrate ability to educate people with newly diagnosed type 2 diabetes following hospital admission and develop a care plan as part of diabetes care team 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> Leads and/or collaborates on the dietetic involvement in medically complex people with diabetes across the lifespan, in all clinical inpatient settings Demonstrate ability to provide resource, direction, education and coaching for hospital staff involved in the provision of nutrition care for people with diabetes Participates in family/whanau meetings and MDT meetings for people who have complex social/healthcare needs 	

	<ol style="list-style-type: none">4. Provides clinical expertise to the development of patient resources related to the dietary management of diabetes in an acute setting5. Contributes to the development, renewing and updating of current diabetes management policies related to inpatient care e.g. hypoglycaemia prevention and management6. Demonstrate ability to liaise with food service contractors/providers, and audit menus appropriately to ensure appropriate meal provision and nutritional adequacy for people with diabetes7. Understand the pathophysiology of the stress response to illness/infection and the relationship of this to nutrition recommendations8. Explain the rationale of avoiding extremes of hyperglycaemia and hypoglycaemia9. Collaborate with specialist diabetes care team on management of hyperglycaemia in people with diabetes in hospital, including appropriate use, monitoring and evaluation of enteral feeding regimens or oral nutrition supplements prescribed	
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Section 6: Microvascular and Macrovascular Complications

Competency statement:

- Demonstrate knowledge of long-term complications of diabetes i.e. microvascular (retinopathy, neuropathy, gastroparesis, nephropathy) and macrovascular complications (cardiovascular disease), and provide specific MNT to prevent and treat these complications where relevant

Level	Objectives	Comments
Diabetic Retinopathy and Neuropathy		
All Dietitians	1. Recognise the increased risk of retinopathy and neuropathy in people with diabetes and explain the benefits of achieving good glycaemic and blood pressure control to people with diabetes	
Diabetes Dietitians (In addition to All Dietitians)	1. Discuss the need for regular retinal screening through dilated pupils and refer as required/appropriate according to local retinal screening guidelines 2. Understand the principles of wound healing including optimum nutritional intake and describe the factors that delay wound healing in people with diabetes	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	1. Discuss the importance of intensive glycaemic and blood pressure control in influencing the development or progression of retinopathy 2. Discuss the importance of slowly achieving glycaemic targets with retinopathy to reduce impact on eye health 3. Understand the effects of elevated blood glucose levels on nerves, joints and blood vessels 4. Define the sensory and autonomic neuropathies associated with diabetes to the feet, stomach, gut, bladder and sex organs 5. Discuss strategies to reduce the risk of developing sensory and autonomic neuropathy	
Diabetic Nephropathy		
All Dietitians	1. Know the importance of blood glucose and blood pressure control in the prevention and management of diabetic kidney disease 2. Describe the impact of lifestyle factors (e.g. excessive intake of sodium (salt) or alcohol) on blood pressure 3. Recognise the importance of referring appropriately to a diabetes specialist dietitian, renal dietitian and/or MDT for further advice and/or input, either directly or via clinical case review	
Diabetes Dietitians (In addition to All Dietitians)	1. Identify the need to educate people with diabetes about the risks of developing nephropathy and the natural history of the disease 2. Discuss the MNT and associated advice for people with diabetes and chronic kidney disease (CKD) stages 1-3, and work with renal dietitians for those with stage 4 and 5 CKD 3. Describe the psychological impact of CKD on people with diabetes and their family/whanau 4. Describe the differences between treatment options for CKD including	

	transplant	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Describe the various levels of CKD, including hyperfiltration, micro- and macroalbuminuria and chronic kidney disease 2. Discuss the transient nature of microalbuminuria and the causes of transient increases in albumin excretion 3. Describe the use of estimated glomerular filtration rate (eGFR) as a marker of stage of CKD 4. Describe the latest evidence-based macronutrient and micronutrient dietary changes required with the progression of CKD, including the relationship of sodium reduction in hypertension management 5. Understand the need for reducing insulin requirements, and changes in other diabetes medications, required in advanced CKD 6. Demonstrate ability to individualise MNT and associated advice for people with diabetes and CKD stages 1-3 7. Discuss main differences in medical nutrition therapy between different treatment options for early CKD including transplant 8. Describe relationship between transplant and New Onset Diabetes After Transplant (NODAT) 	
Gastroparesis		
All Dietitians	<ol style="list-style-type: none"> 1. Recognise the importance and refer appropriately to diabetes specialist dietitian and MDT for further advice and/or input, either directly or via clinical case review 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Describe the impact of gastroparesis on metabolic control and the management of gastroparesis 2. Explain the dietary recommendations for gastroparesis and diabetes 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate ability to provide individualised medical nutrition therapy to people with gastroparesis and diabetes 	
Macrovascular Disease		
All Dietitians	<ol style="list-style-type: none"> 1. Discuss the role of nutrition and lifestyle in the primary and secondary prevention of macrovascular disease 2. Discuss the increased risk of a macrovascular event in people with diabetes 3. Recognise central obesity as a marker of increased vascular risk 4. Describe the relationship between dietary fat, free sugars, excess calories and obesity 5. Describe treatment targets specific to diabetes including recommendations for dietary fat intake 6. Describe the importance to cardiovascular risk of total fat, saturated fat, monounsaturated fat, polyunsaturated fat (including fish oils) and trans fatty acids 	

	<p>7. Identify foods that are rich in omega 3 fatty acids – including vegetarian sources - and differentiate between mechanism of action</p> <p>8. Describe the role of cholesterol-lowering spreads and functional foods</p> <p>9. Describe the National Heart Foundations Healthy Heart Model and relate this to the prevention of obesity and Type 2 diabetes</p> <p>10. Demonstrate how to use the Heart Healthy Model in group self-management education</p>	
<p>Diabetes Dietitians (In addition to All Dietitians)</p>	<p>1. Discuss the benefits of intensive management of dyslipidaemia and hypertension, even in elderly people</p> <p>2. Explain the differences in manifestations of macrovascular disease and how these vary between different ethnic groups</p> <p>3. Describe additive effect of multiple risk factors on vascular outcomes</p>	
<p>Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)</p>	<p>1. Demonstrate ability to provide individualised MNT to people with macrovascular disease</p>	

Section 7: Coexisting conditions – coeliac disease, eating disorders, and other conditions

Competency Statement:

- Demonstrate a knowledge of the treatment and management of conditions that frequently coexist with diabetes

Level	Objectives	Comments
Coeliac Disease		
All Dietitians	<ol style="list-style-type: none"> 1. Define coeliac disease including symptoms, treatment and information that is available for people with diabetes and coeliac disease 2. Explain how to facilitate access to organisations that support people with coeliac disease 3. Explain where to obtain up-to-date information on gluten free foods 4. Recognise the importance of referring appropriately to diabetes specialist dietitians for further advice and/or input for those with coeliac disease and diabetes 	
Diabetes Dietitians	<ol style="list-style-type: none"> 1. Appreciate the practical difficulties of the food constraints involved in diabetes and coeliac disease, and describe practical food alternatives 2. Describe the requirements of other nutrients in coeliac disease (e.g. calcium and iron) 3. Refer to a diabetes specialist dietitian or specialist clinical dietitian (gastroenterology) for further advice and / or input as per local guidelines 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Describe the increased risk of coeliac disease associated with Type 1 diabetes 2. Demonstrate ability to provide individualised MNT, including carbohydrate counting, and support person to self-manage Type 1 diabetes and coeliac disease 3. Collaborate on the development of educational literature and resources to educate the person about living and self-managing both diabetes and coeliac disease 	
Eating Disorders		
All Dietitians	<ol style="list-style-type: none"> 1. State the different types of eating disorders and recognise that the incidence of eating disorders may be increased in people with diabetes 2. Discuss signs that indicate a potential eating disorder 3. Recognise the risk of insulin omission as a means of weight-control 4. Explain the importance of referring to and/or working with a specialised eating disorder dietitian/team 	
Diabetes Dietitians	<ol style="list-style-type: none"> 1. Identify those at risk of eating disorders, or suspected eating disorders, and refer as appropriate to a specialised eating disorder team 	
Diabetes	<ol style="list-style-type: none"> 1. Demonstrate ability to work in collaboration with individuals who have 	

Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	diabetes and an eating disorder to develop a nutritional plan to regulate eating patterns and dietary intake 2. Demonstrate ability to recognise when it is necessary to collaborate and/or refer to a specialist eating disorder dietitian/team	
Other Co-existing Conditions		
All Dietitians	1. Recognise the importance and refer people with co-existing medical conditions appropriately as per local guidelines for further advice and/or input	
Diabetes Dietitians	1. Be aware of other common disease states that contribute to an increased risk of developing diabetes (e.g. Cystic Fibrosis, Prada-Willi Syndrome, people on psychiatric medications, sleep disorders, Metabolic Reproductive Syndrome etc) 2. Discuss the importance of working with people who have conditions that can lead on to diabetes to minimise their risk of becoming diagnosed with diabetes	
Diabetes Specialist Dietitians (In addition to All Dietitians & Diabetes Dietitians)	1. Demonstrate ability to provide appropriate individualised MNT for other co-existing conditions e.g. Cystic Fibrosis, Prada-Willi Syndrome, people on psychiatric medications, sleep disorders, Metabolic Reproductive Syndrome etc	

Section 8: Teaching and Learning Skills

Competency Statement:

- Apply principles of teaching and learning, empowerment and care planning to facilitate self-management of individuals with diabetes and/or healthcare professionals

Level	Objectives	Comments
All Dietitians	<ol style="list-style-type: none"> 1. Demonstrate ability to provide culturally appropriate basic nutrition education and diabetes self-management skills appropriate to the person with diabetes 2. Demonstrate knowledge of theoretical frameworks and educational philosophies underpinning behaviour change 3. Discuss the importance of assessing the educational ability and health literacy level of individuals and ensure resources used are suitable for the person with diabetes age, level of literacy and type of diabetes 4. Demonstrate knowledge of available evidenced based resources for people with diabetes from a range of organisations including use of information technology (e.g. websites, smartphone apps etc) 5. Discuss how to work collaboratively with the person with diabetes and their family/whanau empowering/ supporting them to self-manage 6. Discuss the importance of evaluating an individual's preferred learning style 7. Demonstrates ability to use motivational interviewing skills to support people with diabetes to self-manage 8. Demonstrate ability to support people with diabetes to set specific, measurable, attainable, realistic, time-framed (SMART) self-management goals 9. Demonstrates ability to provide diabetes and nutrition-related education and information in a way that is understood by the person with diabetes and their family/whanau 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Discuss the importance of proficient nutrition-related diabetes care and education to the person with diabetes and their family/whanau 2. Demonstrate knowledge of behavioural change strategies to facilitate goal setting, risk factor reduction, problem solving and lifestyle modification 3. Reflect on delivery of the structured education to identify what went well, what went less well and what could be done differently based on feedback 4. Demonstrate the use of strategies required to deliver structured diabetes self-management group education on non-complex diabetes related principles that is age and culturally appropriate 5. Demonstrate use of principles of adult learning and group education facilitation skills 6. Assess attitude towards learning and preferred learning style 7. Demonstrate ability to work collaboratively with people with diabetes and their family/ whanau supporting them to self-manage 	

	<p>8. Discuss the need for collaborative care and effective inter-professional communication to ensure all people involved in the person with diabetes care work towards the same goals to ensure consistent advice is given to the patient and the family/whanau</p> <p>9. Demonstrate ability to provide evidenced based nutrition education for pre-diabetes and/or non-complex type 2 diabetes to other members of the diabetes care team</p> <p>10. Demonstrate knowledge of available technology to facilitate self-management e.g. smartphone applications or websites, and the importance of ensuring those recommended are reliable and contain accurate information</p>	
<p>Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)</p>	<p>1. Demonstrate ability to provide expert level dietetic input appropriate for people with diabetes, considering all aspects that can impact on diabetes management including but not limited to: medication compliance and taking /technique, age, culture, lifestyle</p> <p>2. Discuss the necessary requirements in order to complete a peer review process for group sessions developed and/or implemented by Level 1 & 2 dietitians</p> <p>3. Plan appropriate education, either for individuals or in a group setting, across the lifespan for people with Type 1 diabetes, DIP, those on insulin pump therapy, CGMS or other complex medical nutrition therapy requirements</p> <p>4. Demonstrate use of strategies required to deliver structured self-management diabetes education on complex diabetes-related principles e.g. advanced carbohydrate counting, DAFNE etc</p> <p>5. Contribute to and/or develop local and national curriculum and programme development, design, evaluation and/or audits for diabetes related education frameworks</p> <p>6. Contribute to and/or develop local and national guidelines related to MNT for people with diabetes in all settings and across the lifespan</p> <p>7. Demonstrate ability to provide evidenced based nutrition education to other members of the diabetes care team on all aspects of nutritional management of diabetes</p> <p>8. Demonstrate ability to provide education to student and postgraduate dietitians on all aspects of diabetes management, in a variety of education settings e.g. lectures, one on one, online courses etc</p> <p>9. Serve as an expert in diabetes related nutrition by providing supervision, coaching, mentorship and quality assurance to other members of the diabetes care team including dietitians</p>	

Section 9: Behavioural Approaches and Communication

Competency statement:

- Apply effective behavioural approaches and communication skills to facilitate self-management of individuals with diabetes

Level	Objectives	Comments
All Dietitians	<ol style="list-style-type: none"> 1. Discuss community understanding and attitudes to diabetes and understand the impact this can have on the person with diabetes self-management 2. Explain strategies for communicating with people with diabetes who have psychological disorders in a sensitive and empathetic manner 3. Identify potential barriers to self-management of diabetes 4. Understand the stages of change/transtheoretical model 5. Demonstrate the ability to listen to people with diabetes concerns and challenges faced when living with and self-managing diabetes 6. Discuss cognitive, emotional, behavioural and social barriers to diabetes self-management (e.g. cognitive and physical limitations, literacy, lack of support systems, and negative cultural influences), and strategies to address these 7. Discuss the use of motivational interviewing techniques for behaviour change and the benefits of implementing these when working with people with diabetes 8. Discuss the local support services available to people with diabetes and refer appropriately to these services 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Identify common psychosocial disorders in people with diabetes 2. Demonstrate ability to offer appropriate emotional and behavioural support to people with diabetes and their families within the context of diabetes education 3. Discuss how to assist people with diabetes identify barriers to change 4. Identify literacy/numeracy difficulties and adjust teaching strategies to accommodate these 5. Demonstrate how to apply problem solving skills to assist people with diabetes in understanding the challenges to diabetes self-management, in both groups or one on one interactions 6. Refer to health psychologist / mental health / counselling services appropriately 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Discuss prevalent psychological disorders among people with diabetes that warrant specialised healthcare such as depression, anxiety, eating disorders and substance abuse and understand the impact on emotional wellbeing, self-management behaviours and clinical outcomes 2. Recognise the psychological impact of changes in people's health situations, e.g. diagnosis of a co-morbidity or specific diabetes-related complication such as impaired vision, diabetic kidney disease, erectile 	

	<p>dysfunction or gastroparesis</p> <ol style="list-style-type: none">3. Discuss strategies for coping with insulin refusal or omission4. Demonstrate how to assist people identify barriers to change5. Discuss strategies for minimising trauma in SMBG testing and coping with insulin refusal or omission	
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Section 10: Cultural Approaches and Working with High Risk Populations

Competency Statement:

- Recognise and respect that there are many cultures with different beliefs and values. The principles of The Treaty of Waitangi emphasises the need to recognise that client/ patient needs are met in a way that is respected and have acknowledged individual beliefs and values through partnership, participation and protection

Level	Objectives	Comments
All Dietitians	<ol style="list-style-type: none"> Demonstrate ability to apply Treaty of Waitangi principles when supporting people with diabetes Be aware of the different models of health for various ethnicities e.g. Whare Tapa Wha and Fonofale Discuss the importance of ethnic specific groups in diabetes management Discuss awareness/acknowledgment of general eating patterns of ethnically diverse people with diabetes within the local population Display awareness of religious and cultural festivals and the implications for diabetes e.g. fasting and feasting Recognise the importance of providing culturally specific and appropriate advice to people with diabetes in their own language whenever possible through use of translators and culturally appropriate resources Describe the increased risk of diabetes and diabetes related co-morbidities of some ethnic groups Explain the importance of providing a physical environment conducive to meeting cultural needs Recognises there are different cultural values around food and nutrition and how these impact on food choices 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> Develop information and resources/materials that are evidenced based, appropriate for patient group and are culturally and literacy appropriate Explain the importance of evidence based advice on local foods and medicines that may be taken as supplementary/alternative forms of medicine Demonstrate ability to work with local ethnic groups to promote appropriate programmes to people with diabetes Discusses different cultural values around health, food and nutrition and how these impact on diabetes self-management, including food choices, behaviour and beliefs 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> Display an in depth knowledge of high risk groups across the life span in the local population, and identify needs/gaps in current service provision Demonstrate ability to give guidance on adjusting the timing of meals and drinks and medication in times of altered meal patterns due to cultural beliefs and practices Demonstrates ability to work with different cultural values around health, food and nutrition and support self-management, including food choices 	

Section 11: Audit and Research

Competency Statement:

- Demonstrate knowledge of audit and research and how they are an integral part of diabetes care

Level	Objectives	Comments
All Dietitians	<ol style="list-style-type: none"> 1. Identify the purpose of evaluation, audit and research in diabetes care 2. Explain how data can be recorded and used for clinical audit 3. Interpret statistical results and be able to critically appraise published literature including assessing bias, to ensure that dietetic clinical practice and resources used are up to date and evidenced based 	
Diabetes Dietitians (In addition to All Dietitians)	<ol style="list-style-type: none"> 1. Discuss the need to evaluate, audit and research all aspects dietetic diabetes care 2. Discuss how evaluation of results can be used to improve existing self-management and group programmes 3. Participate in the evaluation and/or audit of the use of clinical practice guidelines locally and nationally 4. Participate in the evaluation and audit of local diabetes services as part of the diabetes care team 	
Diabetes Specialist Dietitians (In addition to All Dietitian & Diabetes Dietitians)	<ol style="list-style-type: none"> 1. Demonstrate ability to evaluate, audit and research all aspects of dietetic diabetes care 2. Discuss the concept of continuous quality improvement and how measures can be integrated into day-to-day practice 3. Identify and lead on service improvement and audit within the specialist diabetes care team 4. Discuss current research in diabetes prevention and management involving new nutritional findings, technologies and therapies 5. Work in collaboration with a research team to conduct a research project and present the findings to relevant conferences and scientific meetings 6. Describe the key findings and application to practice of various major intervention studies demonstrating benefits of improved diabetes management 7. Write research proposals, obtain ethical approval, conduct research and publish results in peer reviewed journals and/or at conferences and scientific meetings 8. Discuss the importance of using validated questionnaires when conducting research 	

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List of abbreviations

ACCORD	Action to Control Cardiovascular Risk in Diabetes
ADA	American Diabetes Association
APC	Annual Practicing Certificate
BMI	Body Mass Index
CGM	Continuous Glucose Monitoring
CGMS	Continuous Blood Glucose Monitoring System
CHO	Carbohydrate
CSII	Continuous Subcutaneous Insulin Infusion
CCP	Continuing Competency Programme
CF	Correction Factor
CGM	Continuous Glucose Monitoring
CKD	Chronic Kidney Disease
DAFNE	Dose Adjustment For Normal Eating
DCCT	Diabetes Control and Complications Trial
DHB	District Health Board
DIP	Diabetes in Pregnancy
DKA	Diabetic Ketoacidosis
DSIG	Diabetes Special Interest Group
eGFR	Estimated Glomerular Filtration Rate
GDM	Gestational Diabetes
GI	Glycaemic Index
GP	General Practitioner
HbA1c	Glycated Haemoglobin
HEADSS	Home, Education (e.g. school), Activities/Employment, Drugs, Suicidality, and Sex
HHS	Hyperosmolar Hyperglycaemic State
HONK	Hyperosmolar Non-Ketotic Acidosis
ISF	Insulin Sensitivity Factor
MDI	Multiple Daily Injection
MDT	Multi-Disciplinary Team
MNT	Medical Nutrition Therapy
MODY	Maturity Onset Diabetes of the Young
NZGG	New Zealand Guideline Group
NZRD	New Zealand Registered Dietitian
NZSSD	New Zealand Society for the Study of Diabetes
PDP	Professional/Personal Development Plan
PRP	Performance Review Processes
PHO	Primary Healthcare Organisation
NODAT	New Onset Diabetes After Transplant
OTC	Over-the-counter
SMBG	Self-monitoring Blood Glucose
SMART	Specific, Measurable, Attainable, Realistic, Time-framed
UKPDS	United Kingdom Prospective Diabetes Study

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