

Summary of recommendations

Defining and diagnosing type 2 diabetes

Recommendation	Reference	Grade*
Individuals who are not at high risk of type 2 diabetes should be screened for risk of diabetes every three years from 40 years of age using the Australian type 2 diabetes risk assessment tool (AUSDRISK)	1 NHMRC, 2009	C
Aboriginal and Torres Strait Islander people should be screened annually with blood testing (fasting plasma glucose, random venous glucose or glycated haemoglobin [HbA1c]) from 18 years of age	2 RACGP and NACCHO, 2018	Good Practice Point
Individuals with any one of the following risk factors: <ul style="list-style-type: none"> • AUSDRISK score of ≥ 12 • all people with a history of a previous cardiovascular event (acute myocardial infarction or stroke) • women with a history of gestational diabetes mellitus • women with polycystic ovary syndrome • patients on antipsychotic drugs should be screened <ul style="list-style-type: none"> • with fasting blood glucose (FBG) or HbA1c <ul style="list-style-type: none"> • every three years 	1 NHMRC, 2009 1 NHMRC, 2009	B C
Individuals with impaired glucose tolerance test or fasting glucose (not limited by age) should be screened: <ul style="list-style-type: none"> • with FBG or HbA1c <ul style="list-style-type: none"> • every 12 months 	1 NHMRC, 2009 1 NHMRC, 2009	B C
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Person-centred care

Recommendation	Reference	Grade*
To optimise patient health outcomes and health-related quality of life, a person-centred communication style should be used that: <ul style="list-style-type: none"> • uses person-centred and strength-based language • uses active listening • elicits patient preferences and beliefs • assesses literacy, numeracy and potential barriers to care 	1 American Diabetes Association, 2019	B
Care should be aligned with components of the Chronic Care Model (CCM) to ensure productive interactions between a prepared, proactive practice team and an informed, activated patient	1 American Diabetes Association, 2019	A
Care systems should support team-based care, community involvement, patient registries and embedded decision-support tools to meet patient needs	1 American Diabetes Association, 2019	B
Treatment decisions should be timely, based on evidence-based guidelines and tailored to individual patient preferences, prognoses and comorbidities	1 American Diabetes Association, 2019	B
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Preventing progression to type 2 diabetes

Recommendation	Reference	Grade*
People with impaired glucose tolerance (IGT) or impaired fasting glucose (IFG) should be referred to lifestyle intervention programs to: <ul style="list-style-type: none"> • achieve and maintain a 7% reduction in weight • increase moderate-intensity physical activity to at least 150 minutes per week 	1 American Diabetes Association, 2019	A
People with glycated haemoglobin (HbA1c) 6.0–6.4% may also benefit from a structured weight loss and exercise program to reduce their risk of developing type 2 diabetes	2 Diabetes Canada, 2018	D, consensus
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Early-onset type 2 diabetes

Recommendation	Reference	Grade*
All children, adolescents and young adults (aged <25 years) with type 2 diabetes should be referred to an endocrinologist or, if not accessible, a specialist physician with an interest in diabetes	RACGP Diabetes Handbook working groups, 2020	Consensus
For people aged ≥25 years with early-onset type 2 diabetes, due to the complexity of management and higher risk of complications, consider timely referral to an endocrinologist and/or management through a shared care arrangement	RACGP Diabetes Handbook working groups, 2020	Consensus
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Lifestyle interventions for management of type 2 diabetes

Recommendation	Reference	Grade*
Physical activity		
Children and adolescents with type 1 or type 2 diabetes or at high risk of type 2 diabetes should engage in 60 min/day or more of moderate- or vigorous-intensity aerobic activity, with vigorous muscle-strengthening and bone-strengthening activities at least three days/week	3 American Diabetes Association, 2019	C
Most adults with type 2 diabetes should engage in 150 minutes or more of moderate-to-vigorous intensity aerobic activity per week, spread over at least three days/week, with no more than two consecutive days without activity	3 American Diabetes Association, 2019	B
Additionally, adults with type 2 diabetes should engage in resistance exercise: <ul style="list-style-type: none"> • 2–3 sessions/week on non-consecutive days • for a total of at least 60 minutes per week 	3 American Diabetes Association, 2019 4 Exercise & Sports Science Australia, 2012	B Consensus
All adults, particularly those with type 2 diabetes, should decrease the amount of time spent in daily sedentary behaviour	3 American Diabetes Association, 2019	B
Prolonged sitting should be interrupted every 30 minutes for blood glucose benefits, particularly in adults with type 2 diabetes	3 American Diabetes Association, 2019	C
Flexibility training and balance training are recommended 2–3 times/week for older adults with diabetes; yoga and tai chi may be included based on individual preferences to increase flexibility, muscular strength and balance	3 American Diabetes Association, 2019	C
Diet		
Consumption of cereal foods (especially three serves/day of wholegrains) is associated with reduced risk of type 2 diabetes	5 NHMRC, 2013	B
Consumption of at least 1.5 serves/day of dairy foods (eg milk, yoghurt, cheese) is associated with reduced risk of type 2 diabetes	5 NHMRC, 2013	C
Weight		
In people with overweight or obesity with diabetes, a nutritionally balanced, calorie-reduced diet should be followed to achieve and maintain a lower, healthier body weight	6 Diabetes Canada, 2018	A, level 1A
An intensive healthy behaviour intervention program, combining dietary modification and increased physical activity, may be used to achieve weight loss, improve glycaemic control and reduce CVD risk	6 Diabetes Canada, 2018	A, level 1A
Weight management medication may be considered in people with diabetes and overweight or obesity to promote weight loss and improved glycaemic control	6 Diabetes Canada, 2018	A, level 1A
Metabolic surgery should be recommended to manage type 2 diabetes: <ul style="list-style-type: none"> • in people with a body mass index (BMI) ≥ 40 kg/m² • in people with a BMI 35.0–39.9 kg/m² when hyperglycaemia is inadequately controlled by lifestyle and optimal medical therapy 	7 Diabetes Surgery Summit, 2016	Consensus

Recommendation	Reference	Grade*
Metabolic surgery should also be considered for patients with type 2 diabetes and BMI 30.0–34.9 kg/m ² if hyperglycaemia is inadequately controlled despite optimal treatment with either oral or injectable medications	7 Diabetes Surgery Summit, 2016	Consensus
Smoking cessation		
All people who smoke should be offered brief advice to quit smoking	8 RACGP, 2020	Strong recommendation; high certainty
Alcohol consumption		
People with diabetes can take alcohol in moderation as part of a healthy lifestyle, but should aim to keep within the target consumption recommended for people without diabetes	9 Scottish Intercollegiate Guidelines Network, 2017	B
*Refer to ' Explanation and source of recommendations ' for explanations of the levels and grades of evidence.		

Glucose monitoring

Recommendation	Reference	Grade*
Glycated haemoglobin (HbA1c) measurement should be used to assess long-term blood glucose control	1 NHMRC, 2009	A
Self-monitoring of blood glucose (SMBG) is recommended for patients with type 2 diabetes who are using insulin and have been educated in appropriate alterations in insulin dose	2 Scottish Intercollegiate Guidelines Network, 2017	B
For people with type 2 diabetes not receiving insulin therapy: <ul style="list-style-type: none"> frequency of SMBG should be individualised, depending on type of glucose-lowering medications, level of glycaemic control and risk of hypoglycaemia when glycaemic control is not being achieved, SMBG should be instituted and should include periodic pre- and post-prandial measurements and training of healthcare providers and people with diabetes in methods to modify health behaviours and glucose-lowering medications in response to SMBG values 	3 Diabetes Canada, 2018	D, consensus B, level 2
A reasonable HbA1c goal for many non-pregnant adults is <7% (53 mmol/mol)	4 American Diabetes Association, 2019	A
Less stringent HbA1c goals (such as <8% [64 mmol/mol]) may be appropriate for patients with a history of severe hypoglycaemia, limited life expectancy, advanced microvascular or macrovascular complications, extensive comorbid conditions, or long-standing diabetes in whom the goal is difficult to achieve despite diabetes self-management education, appropriate glucose monitoring, and effective doses of multiple glucose-lowering agents including insulin	4 American Diabetes Association, 2019	B
Targets for self-monitoring of blood glucose levels are 4.0–7.0 mmol/L for fasting and preprandial, and 5.0–10.0 mmol/L for two-hour postprandial	3 Diabetes Canada, 2018	B, level 2
*Refer to ' Explanation and source of recommendations ' for explanations of the levels and grades of evidence.		

Medical management of glycaemia

Recommendation	Reference	Grade*
Glucose-lowering medication in people newly diagnosed with type 2 diabetes		
A person-centred approach should be used to guide the choice of glucose-lowering medication. Considerations include comorbidities (atherosclerotic cardiovascular disease, heart failure, chronic kidney disease), hypoglycaemia risk, impact on weight, cost, risk for side effects and patient preferences	1 American Diabetes Association, 2019	E [†]
Healthy behaviour interventions should be initiated at diagnosis	2 Diabetes Canada, 2018	B, level 2
If glycaemic targets are not achieved using healthy behaviour interventions alone within three months, glucose-lowering therapy should be added to reduce the risk of microvascular complications	2 Diabetes Canada, 2018	A, level 1A
Metformin should be chosen over other agents due to its low risk of hypoglycaemia and weight gain	2 Diabetes Canada, 2018	A, level 1A
Individuals with metabolic decompensation (eg marked hyperglycaemia, ketosis or unintentional weight loss) should receive insulin with or without metformin to correct the relative insulin deficiency	2 Diabetes Canada, 2018	D, consensus
All healthcare practitioners who initiate or educate patients on injectable glucose-lowering medications should be familiar with, and follow, the recommended guidelines	RACGP Diabetes Handbook working groups, 2020	Consensus
Advancing treatment		
Dose adjustments to, and/or addition of, glucose-lowering medications should be made in order to attain target glycosylated haemoglobin (HbA1c) within 3–6 months	2 Diabetes Canada, 2018	D, consensus
If glycaemic targets are not achieved, other classes of glucose-lowering agents should be added to improve glycaemic control	2 Diabetes Canada, 2018	B, level 2
<p>*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.</p> <p>†E = expert opinion: recommendation in which there is no evidence from clinical trials, in which clinical trials may be impractical, or in which there is conflicting evidence.</p>		

Type 2 diabetes and cardiovascular risk

Recommendation	Reference	Grade*
Assessing cardiovascular disease risk		
Calculate cardiovascular disease (CVD) risk level using an evidence-based tool, for example: <ul style="list-style-type: none"> Australian absolute cardiovascular disease risk calculator Australian cardiovascular risk charts 	RACGP Diabetes Handbook working groups, 2020	Consensus
Adults with any of the following conditions do not require absolute CVD risk assessment using the Framingham risk equation because they are already known to be at clinically determined high risk of CVD: <ul style="list-style-type: none"> diabetes and aged >60 years diabetes with microalbuminuria (>20 mcg/min or urine albumin-to-creatinine ratio [UACR] >2.5 mg/mmol for men and >3.5 mg/mmol for women) moderate or severe chronic kidney disease (persistent proteinuria or estimated glomerular filtration rate [eGFR] <45 mL/min/1.73 m²) a previous diagnosis of familial hypercholesterolaemia systolic blood pressure ≥180 mmHg or diastolic blood pressure ≥110 mmHg serum total cholesterol >7.5 mmol/L 	1 NVDPA, 2012	D
Aboriginal and Torres Strait Islander peoples are generally assumed to be at higher risk	1 NVDPA, 2012	D
Patients with pre-existing CVD are at high risk	2 Baker IDI, 2015	None given
Managing CVD risk		
Adults at high absolute risk of CVD should be simultaneously treated with lipid and blood pressure-lowering pharmacotherapy in addition to lifestyle advice, unless contraindicated or clinically inappropriate	1 NVDPA, 2012	B
Sodium glucose co-transporter 2 (SGLT2) inhibitors are recommended in patients with type 2 diabetes in the setting of CVD and insufficient glycaemic control despite metformin, to decrease the risk of cardiovascular events and decrease the risk of hospitalisation for heart failure	3 Heart Foundation, 2018	Strong; high-quality evidence
Antihypertensive medication		
Antihypertensive therapy is strongly recommended in patients with diabetes and systolic blood pressure ≥140 mmHg	4 Heart Foundation, 2016	Strong; level I evidence
In patients with diabetes and hypertension, any of the first-line antihypertensive drugs that effectively lower blood pressure are recommended	4 Heart Foundation, 2016	Strong; level I evidence
In patients with diabetes and hypertension, a blood pressure target of <140/90 mmHg is recommended	4 Heart Foundation, 2016	Strong; level I evidence
A systolic blood pressure target of <120 mmHg may be considered for patients with diabetes in whom prevention of stroke is prioritised	4 Heart Foundation, 2016	Weak
In patients with diabetes where treatment is being targeted to <120 mmHg systolic, close follow-up is recommended to identify treatment-related adverse effects including hypotension, syncope, electrolyte abnormalities and acute kidney injury	4 Heart Foundation, 2016	Strong

Recommendation	Reference	Grade*
Lipid-lowering medications		
Use statins as first-line for lipid-lowering therapy	1 NVDPA, 2012	A
All adults with type 2 diabetes and known prior CVD (except haemorrhagic stroke) should receive the maximum tolerated dose of a statin, irrespective of their lipid levels Note: The maximum tolerated dose should not exceed the maximum available dose (eg 80 mg atorvastatin, 40 mg rosuvastatin)	2 Baker IDI, 2015	A
In people with type 2 diabetes and known prior CVD, fibrates should be commenced in addition to a statin or on their own (for those intolerant to statin) when fasting triglycerides are greater than or equal to 2.3 mmol/L, or high-density lipoprotein cholesterol (HDL-C) is low [†] Note: When used in combination with statins, fenofibrate presents a lower risk of adverse events than other fibrates combined with statins	2 Baker IDI, 2015	B
For adults with type 2 diabetes and known prior CVD already on maximally tolerated statin dose or intolerant of statin therapy, if fasting low-density lipoprotein cholesterol (LDL-C) levels remain ≥ 1.8 mmol/L, consider commencing one of: <ul style="list-style-type: none"> • ezetimibe • bile acid binding resins, or • nicotinic acid 	2 Baker IDI, 2015	Consensus
Antithrombotic medication		
All adults with type 2 diabetes and known prior CVD should receive long-term antiplatelet therapy unless there is a clear contraindication	2 Baker IDI, 2015	A
All adults with type 2 diabetes and a history of ischaemic stroke or transient ischaemic attack should receive: <ul style="list-style-type: none"> • low-dose aspirin, or • clopidogrel, or • combination low-dose aspirin and extended-release dipyridamole 	2 Baker IDI, 2015	A A B
Patients with a history of stroke and non-valvular atrial fibrillation who have adequate renal function should be initiated on direct oral anticoagulants (DOACs) in preference to warfarin	5 Stroke Foundation, 2019	Strong recommendation
All adults with type 2 diabetes and recent acute coronary syndrome and/or coronary stent should receive, for 12 months after the event or procedure: <ul style="list-style-type: none"> • combination low-dose aspirin and clopidogrel, or • combination low-dose aspirin and prasugrel, or • combination low-dose aspirin and ticagrelor 	2 Baker IDI, 2015	B B C
All adults with type 2 diabetes and a history of coronary artery disease, but no acute event in the past 12 months, should receive <ul style="list-style-type: none"> • long-term low-dose aspirin, or • long-term clopidogrel if intolerant to aspirin 	2 Baker IDI, 2015	A B
In the presence of atrial fibrillation or other major risk factors for thromboembolism, there should be consideration of anticoagulant therapy according to other relevant guidelines	2 Baker IDI, 2015	Practice Point
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		
[†] HDL < 1.0 mmol/L (based on the cut-offs reported in the ACCORD and FIELD studies)		

Microvascular complications: Diabetes-related eye disease

Recommendation	Reference	Grade*
Individuals with type 2 diabetes should be screened and evaluated for retinopathy by an optometrist or ophthalmologist at the time of diagnosis	1 Diabetes Canada, 2018	A, level 1
Follow-up screening interval for people with retinopathy should be tailored to the severity of retinopathy	1 Diabetes Canada, 2018	D, consensus
The recommended interval for those with no or minimal retinopathy is 1–2 years	1 Diabetes Canada, 2018	A, level 1
Examine higher risk patients (eg longer duration of diabetes; suboptimal glycaemic management, blood pressure or blood lipid control; people from a non-English-speaking background) who don't have diabetic retinopathy at least annually	2 NHMRC, 2008 3 RANZCO, 2019	None provided Level I evidence; level IV regarding people from non- English-speaking background Consensus
Conduct annual diabetic retinopathy screening for Aboriginal or Torres Strait Islander people with diabetes	2 NHMRC, 2008	None provided Level IV evidence
Results of eye examinations and the follow-up interval plan should be communicated clearly to all members of the diabetes healthcare team	1 Diabetes Canada, 2018	D, consensus
To delay onset and progression of diabetic retinopathy, people with type 2 diabetes should be treated to achieve optimal control of: <ul style="list-style-type: none"> • blood glucose • blood pressure 	1 Diabetes Canada, 2018	A, level 1A A, level 1A
Fenofibrate, in addition to statin therapy, may be used in people with type 2 diabetes to slow the progression of established retinopathy	1 Diabetes Canada, 2018	A, level 1A
Individuals with sight-threatening diabetic retinopathy should be assessed by an ophthalmologist	1 Diabetes Canada, 2018	D, consensus
Pharmacological intervention, laser therapy and/or vitrectomy may be used to manage diabetic retinopathy	1 Diabetes Canada, 2018	A, level 1A
Women with pre-existing type 2 diabetes who are planning for pregnancy or pregnant should be counselled on the risk of development and/or progression of diabetic retinopathy	4 American Diabetes Association, 2019	B
Eye examinations should occur before pregnancy or in the first trimester in patients with pre-existing type 2 diabetes; patients should then be monitored every trimester and for one year postpartum as indicated by the degree of retinopathy	4 American Diabetes Association, 2019	B
The presence of retinopathy is not a contraindication to aspirin therapy for cardioprotection, as aspirin does not increase the risk of retinal haemorrhage	4 American Diabetes Association, 2019	A

*Refer to '[Explanation and source of recommendations](#)' for explanations of the levels and grades of evidence.

Microvascular complications: Diabetes-related neuropathy

Recommendation	Reference	Grade*
All patients should be screened for diabetic peripheral neuropathy, starting at diagnosis of type 2 diabetes and at least annually thereafter	1 American Diabetes Association, 2019	B
Screening for peripheral neuropathy should be conducted by assessing loss of sensitivity to the 10 g monofilament, or loss of sensitivity to vibration at the dorsum of the great toe	2 Diabetes Canada, 2018	A, level 1
The following agents may be used alone or in combination to relieve painful peripheral neuropathy: <ul style="list-style-type: none"> • anticonvulsants <ul style="list-style-type: none"> – pregabalin – gabapentin – valproate • antidepressants <ul style="list-style-type: none"> – amitriptyline – duloxetine – venlafaxine • topical nitrate spray • opioid analgesics 	2 Diabetes Canada, 2018	A, level 1 B, level 2 B, level 2 B, level 2 B, level 2 B, level 2
People with type 2 diabetes should be treated with intensified glycaemic control to prevent the onset and progression of neuropathy	2 Diabetes Canada, 2018	B, level 2
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Microvascular complications: Foot care

Recommendation	Reference	Grade*
Assess all people with diabetes and stratify their risk of developing foot complications	1 NHMRC, 2011	C
Assess risk stratification by enquiring about previous foot ulceration and amputation, visually inspecting the feet for structural abnormalities and ulceration, assessing for neuropathy using either the neuropathy disability score or a 10 g monofilament, and palpating foot	1 NHMRC, 2011	C
People assessed as having intermediate-risk or high-risk feet should be offered a foot protection program. This includes foot care education, podiatry review and appropriate footwear	1 NHMRC, 2011	C
Pressure reduction, otherwise referred to as 'redistribution of pressure' or 'off-loading', is required to optimise the healing of plantar foot ulcers	1 NHMRC, 2011	B
Off-loading of the wound can be achieved with the use of a total contact cast or other device rendered irremovable	1 NHMRC, 2011	B
People with diabetes-related foot ulceration are best managed by a multidisciplinary foot care team	1 NHMRC, 2011	C
There is insufficient evidence to recommend any specific dressing type for typical diabetic foot ulcers	2 Diabetes Canada, 2018	C, level 3
General principles of wound care include the provision of physiologically moist wound environment and off-loading the ulcer	2 Diabetes Canada, 2018	D, consensus

Recommendation	Reference	Grade*
Non-viable tissue should be debrided	2 Diabetes Canada, 2018	A, level I
Provided that all other modifiable factors (off-loading, infection, deformity) have been addressed, adjunctive wound-healing therapies, such as topical growth factors and granulocyte colony-stimulating factor (G-CSF) or dermal substitutes, may be considered for non-healing, non-ischæmic wounds	2 Diabetes Canada, 2018	A, level 1
In people stratified as having low-risk feet (where no risk factors or previous foot complications have been identified), foot examination should occur annually	1 NHMRC, 2011	Consensus
In people stratified as having intermediate-risk or high-risk feet (without current foot ulceration), foot examination should occur at least every 3–6 months	1 NHMRC, 2011	Consensus
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Microvascular complications: Nephropathy

Recommendation	Reference	Grade*
At least once a year, assess urine ACR and eGFR in all patients with type 2 diabetes, regardless of treatment	1 American Diabetes Association, 2019	B
To prevent the onset and delay the progression of CKD, people with diabetes should be treated to optimise blood glucose levels and blood pressure	2 Diabetes Canada, 2018	A, level 1A
It is recommended that adults with type 2 diabetes and CKD with either hypertension or albuminuria receive an ACE inhibitor or an ARB to delay progression of CKD	2 Diabetes Canada, 2018	A, level 1A
Combinations of ACE inhibitor, ARB or DRI should not be used in the management of diabetes and CKD	2 Diabetes Canada, 2018	A, level 1
People with diabetes on an ACE inhibitor or an ARB should have their serum creatinine and potassium levels checked at baseline and within 1–2 weeks of initiation or titration of therapy, and during times of acute illness	2 Diabetes Canada, 2018	D, consensus
For patients with type 2 diabetes and chronic kidney disease, consider use of an SGLT2 inhibitor or GLP-1 RA shown to reduce risk of CKD progression, cardiovascular events, or both	1 American Diabetes Association, 2019	C
Adults with diabetes and CKD should be given a 'sick-day' medication list that outlines which medications should be withheld during times of acute illness	2 Diabetes Canada, 2018	D, consensus
All people with diabetes and CKD should be offered a comprehensive, multifaceted program to reduce cardiovascular risk (refer to the section ' Type 2 diabetes and cardiovascular risk ')	2 Diabetes Canada, 2018	A, level 1A
People with diabetes should be informed that smoking increases the risk of CKD	3 NHMRC 2009	B
<p><i>ACE, angiotensin-converting enzyme; ACR, albumin-to-creatinine ratio; ARB, angiotensin receptor blocker; CKD, chronic kidney disease; CVD, cardiovascular disease; DRI, direct renin inhibitor; eGFR, estimated glomerular filtration rate; GLP-1 RA, glucagon-like peptide-1 receptor agonist; SGLT2, sodium glucose co-transporter 2</i></p> <p>*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.</p>		

Managing glycaemic emergencies

Recommendation	Reference	Grade*
Individuals at risk for hypoglycaemia should be asked about symptomatic and asymptomatic hypoglycaemia at each encounter	1 American Diabetes Association, 2019	C
Glycaemic goals for some older adults might reasonably be relaxed as part of individualised care, but hyperglycaemia leading to symptoms or risk of acute hyperglycaemia complications should be avoided in all patients	1 American Diabetes Association, 2019	C
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Mental health and type 2 diabetes

Recommendation	Reference	Grade*
Routinely monitor people with diabetes for diabetes distress, particularly when treatment targets are not met and at the onset of diabetes complications	1 American Diabetes Association, 2019	B
Providers should consider assessment for symptoms of diabetes distress, depression, anxiety, disordered eating and cognitive capacities using patient-appropriate standardised and validated tools at the initial visit, at periodic intervals, and when there is a change in disease, treatment, or life circumstance; including caregivers and family members in this assessment is recommended	1 American Diabetes Association, 2019	B
People with diabetes with any of the following should be referred to specialised mental health care professionals: <ul style="list-style-type: none"> • significant distress related to diabetes management • persistent fear of hypoglycaemia • psychological insulin resistance • psychiatric disorders (ie depression, anxiety, eating disorders) 	2 Diabetes Canada, 2018	D, consensus
Collaborative care by inter-professional teams should be provided for people with diabetes and depression to improve: <ul style="list-style-type: none"> • depressive symptoms • adherence to antidepressant and non-insulin glucose-lowering medications • glycaemic control 	2 Diabetes Canada, 2018	A, level 1
Psychosocial interventions such as the following should be integrated into diabetes care plans: <ul style="list-style-type: none"> • motivational interventions • stress management strategies • coping skills training • family therapy • case management 	2 Diabetes Canada, 2018	D, consensus C, level 3 A, level 1A A, level 1B B, level 2
Antidepressant medication should be used to treat acute depression in people with diabetes and for maintenance treatment to prevent recurrence of depression	2 Diabetes Canada, 2018	A, level 1/level 1A
*Refer to 'Explanation and source of recommendations' for explanations of the levels and grades of evidence.		

Type 2 diabetes, reproductive health and pregnancy

Recommendations	Reference	Grade*
Pre-pregnancy and pregnancy with existing type 2 diabetes		
Before attempting to become pregnant, women with type 1 or type 2 diabetes should receive pre-conception counselling that includes optimal diabetes management, including nutrition, preferably in consultation with a multidisciplinary pregnancy team to optimise maternal and neonatal outcomes	1 Diabetes Canada, 2018	C, level 3
Before attempting to become pregnant, women with type 2 diabetes should strive to attain a pre-conception glycosylated haemoglobin (HbA1c) as close to normal as is safely possible (ideally $\leq 6.5\%$) to decrease the risk of congenital anomalies, pre-eclampsia, macrosomia and other complications	2 American Diabetes Association, 2019	B
Before attempting to become pregnant, women with diabetes should discontinue medications that are potentially embryopathic, including any from the following classes: <ul style="list-style-type: none"> • angiotensin-converting enzyme inhibitors (ACEIs) inhibitors and angiotensin receptor blockers (ARBs) <ul style="list-style-type: none"> – prior to conception in women with hypertension alone – upon detection of pregnancy in women with chronic kidney disease • statins 	1 Diabetes Canada, 2018	C, level 3 D, consensus D, level 4
Women on metformin and/or sulfonylureas pre-conception may continue on these agents, if glycaemic control is adequate, until pregnancy is achieved	1 Diabetes Canada, 2018	C, level 3
Women on other glucose-lowering medications should switch to insulin prior to conception, as there are no safety data for the use of other glucose-lowering medications agents in pregnancy	1 Diabetes Canada, 2018	D, consensus
Women with pre-pregnancy diabetes should take a 5 mg (but not exceeding) daily dose of folate, starting at least one month prior to conception, for the first trimester, to protect against neural tube defects	3 Scottish Intercollegiate Guidelines Network, 2017 4 RACGP, 2016	B
Pre-pregnancy care provided by a multidisciplinary team is strongly recommended for women with diabetes	3 Scottish Intercollegiate Guidelines Network, 2017	C
*Refer to ‘Explanation and source of recommendations’ for explanations of the levels and grades of evidence.		

Management of type 2 diabetes in older people and residential aged care facilities

Recommendation	Reference	Grade*
Consider the assessment of medical, psychological, functional (self-management abilities) and social geriatric domains in older adults to provide a framework to determine targets and therapeutic approaches for diabetes management	1 American Diabetes Association, 2019	C
Overtreatment of diabetes is common in older adults and should be avoided	1 American Diabetes Association 2019	B
De-intensification (or simplification) of complex regimens is recommended to reduce the risk of hypoglycaemia in older adults, if achievable within the individualised HbA1c target	1 American Diabetes Association 2019	B
For older adults in residential aged care facilities, individualised care plans should be developed and agreed upon by the individual, their GP and facility staff. This will provide clarity regarding aims of care and metabolic targets, and facilitate screening for diabetes-related complications and annual reviews	RACGP Diabetes Handbook working groups, 2020	Consensus
*Refer to ‘Explanation and source of recommendations’ for explanations of the levels and grades of evidence.		

Diabetes and end-of-life care

Recommendation	Reference	Grade*
In people taking glucose-lowering medications and who are at risk of hypoglycaemia, a blood glucose range of 6–15 mmol/L is appropriate in most cases for palliative care	1 Diabetes UK, 2018	Consensus
Determine a blood glucose and glycated haemoglobin (HbA1c) range that is safe for the individual and that avoids hypoglycaemia and hyperglycaemia	RACGP Diabetes Handbook working groups, 2020	Consensus
*Refer to ‘Explanation and source of recommendations’ for explanations of the levels and grades of evidence.		

Managing risks and other impacts of type 2 diabetes

Recommendation	Reference	Grade*
Sick days		
Patients should be educated to develop a sick day management plan after initial diagnosis. This plan should be reviewed at regular intervals	1 Australian Diabetes Educators Association, 2016	None provided
Assist in the development of a sick day care plan and preparation of a home sick day management kit for patients to use during episodes of sickness	1 Australian Diabetes Educators Association, 2016	None provided
Planned surgical procedures		
Patients receiving sodium glucose co-transporter 2 (SGLT2) inhibitors should cease this medication at least three days prior to surgery or procedures that require one or more days in hospital and/or 'bowel preparation', including colonoscopy, to prevent diabetic ketoacidosis (DKA) in the peri-operative period. For day procedures, SGLT2 inhibitors may be ceased just for the day of the procedure	2 Australian Diabetes Society, 2020	Consensus
*Refer to ' Explanation and source of recommendations ' for explanations of the levels and grades of evidence.		

Gestational diabetes mellitus

Recommendation	Reference	Grade*
In the first trimester, all women should be assessed for risk of hyperglycaemia (refer to Box 1 in the section ' Gestational diabetes mellitus '), and those at high risk should have glycaemic assessment	1 NHMRC, 2019	Consensus
Between 24 and 28 weeks' gestation, recommend testing for gestational diabetes mellitus (GDM) to all women who have not previously been tested in the current pregnancy. Recommend repeat testing to women who were tested early in pregnancy due to risk factors and who had a normal result on an initial test	1 NHMRC, 2019	Consensus
Pregnant women with GDM should be offered dietary advice and blood glucose monitoring, and be treated with glucose-lowering therapy depending on target values for fasting and postprandial targets	2 Scottish Intercollegiate Guidelines Network, 2017	A
Postprandial glucose monitoring should be carried out in pregnant women with GDM	2 Scottish Intercollegiate Guidelines Network, 2017	C
Postnatal education and support are important in preventing or delaying the onset of diabetes in the future, and women should be encouraged to attend postnatal testing	1 NHMRC, 2019	Consensus
Women diagnosed with GDM should have a 75 g two-hour oral glucose tolerance test, preferably at 6–12 weeks postpartum, with classification according to World Health Organization criteria	3 ADIPS, 2014	Consensus
Advise women that physical activity and healthy eating during pregnancy help reduce excessive weight gain but do not appear to directly reduce the risk of developing GDM	1 NHMRC, 2019	Qualified evidence-based recommendation (QEBR)
*Refer to ' Explanation and source of recommendations ' for explanations of the levels and grades of evidence.		

Disclaimer

The information set out in this publication is current at the date of first publication and is intended for use as a guide of a general nature only and may or may not be relevant to particular patients or circumstances. Nor is this publication exhaustive of the subject matter. It is no substitute for individual inquiry. Compliance with any recommendations does not guarantee discharge of the duty of care owed to patients. The RACGP and its employees and agents have no liability (including for negligence) to any users of the information contained in this publication.

© The Royal Australian College of General Practitioners 2020

This resource is provided under licence by the RACGP. Full terms are available at www.racgp.org.au/usage/licence

We acknowledge the Traditional Custodians of the lands and seas on which we work and live, and pay our respects to Elders, past, present and future.