Government of **Western Australia**
Department of **Health**

Enhanced Access Community Pharmacy Pilot

Management for overweight and obesity

Clinical practice guideline

Service restricted to patients aged 18 years or over.

Ineligibility for treatment as part of a prescribing service does not preclude a patient from accessing services provided as part of usual pharmacy care.

The information and content in this clinical practice guideline do not constitute medical advice, diagnosis, or treatment recommendations for individual patients. Pharmacists must exercise professional discretion and judgement consistent with their qualifications and legislative authority. This guideline does not override the responsibility of the pharmacist to undertake clinical assessments and to make decisions appropriate to the circumstances of the individual and the relevant standards of care, in consultation with the patient and/or their parent/caregiver. This clinical practice guideline may only be used by pharmacists who have been approved by the Department of Health to participate in the Enhanced Access Community Pharmacy Pilot (EACPP) and are authorised to prescribe under the *Medicines and Poisons Regulations 2016* (WA). This document alone does not provide an authorisation for a pharmacist to prescribe.

Contents

Guideline overview

Meet service and professional obligations

- Initial patient eligibility and suitability for management within the scope of the service
- Patient informed consent (including consent for communication with other health practitioners if relevant)

Patient history and assessment

- Patient history
- Examination and screening for common comorbidities
- Investigations/test results

Develop management plan

- Non-pharmacological measures:
  - lifestyle modification
  - reduced energy diets and low energy diets
- Secondary weight loss strategies:
  - very low energy diet
  - Pharmacotherapy:
    - orlistat

Confirm management is appropriate

- Contraindications and precautions and interactions
- Pregnancy and lactation

Communicate agreed management plan

- Weight management plan including goals
- Medication counselling
- General advice and patient information
- Communication with other health practitioners

Clinical review

- Response to strategies
- Continue, modify, or stop treatment
- Communication with other health practitioners

Refer when

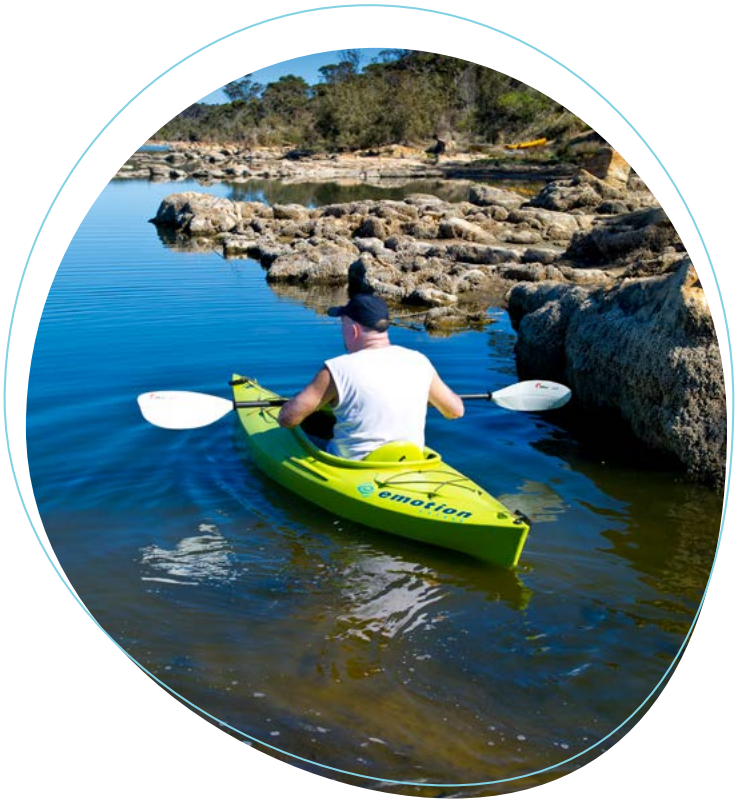
- The patient is aged below 18 years (does not preclude a patient from accessing usual pharmacy care)
- The patient is or could be pregnant or lactating
- BMI > 40 kg/m^2
- Comorbidity not being managed by an appropriate healthcare provider or that requires specialist medical management for weight loss
- Previous bariatric surgery
- Inadequate response to Management Plan B (< 5 per cent loss after 12 weeks)
- Taking a medicine associated with weight gain.

Treat and concurrently refer

- Patients with diagnosed (or suspected) psychiatric disorders including psychosis, schizophrenia, bipolar disorder, major depression, anxiety, eating disorder (binge eating, anorexia nervosa, bulimia), or a history of eating disorders
- Patients with clinically significant nutritional (vitamin or mineral) deficiencies
- Patients under active medical treatment and supervision for weight reduction
- Patients with cardiovascular disease (CVD), asthma, or chronic obstructive pulmonary disease (COPD)
- Patients aged > 65 years
- Investigations indicate further investigation of a possible comorbidity is required.

Key points

- Weight and weight loss are sensitive issues for many people and most individuals with overweight and obesity will have attempted multiple weight loss interventions[1]. It is important to communicate and provide care to patients in a way that is person-centred, culturally sensitive, non-judgmental, and private[2].
- Human behaviour, genetics, environment, and lifestyle all play a role in managing body weight[3, 4].
- The social determinants of health influence a patient's risk of being overweight and obese, of which social inequality and disadvantage contribute to unfair and avoidable differences in health outcomes within groups in society[5].
- Excess weight (overweight and obesity), generally defined in adults as a body mass index (BMI) ≥ 25 kg/m^2, is a risk factor for metabolic and chronic conditions, including type 2 diabetes, cardiovascular disease (CVD) and some cancers, leading to higher rates of premature morbidity and mortality[6, 7].



- Body mass index (BMI) is an internationally recognised standard for classifying overweight and obesity in adults, particularly in a population health context[6, 8]. BMI does not directly measure body fat and may be insensitive to body composition, particularly in older people and very muscular people/athletes; however, it is strongly correlated to other direct measures of body fat and obesity-related comorbidities (CVD)[8, 9].
- Excess body weight for height is associated with osteoarthritis, poor mental health, and conditions affecting the reproductive and gastrointestinal systems[9].
- While many people can achieve short-term weight loss, sustained weight loss/maintenance over the long-term (over 2 years) is required for cardiovascular benefits[9].
- Effective and long-term management of overweight and obesity requires a multidisciplinary team care approach tailored to the individual[6, 10-12].
- Lifestyle modification is the foundation of weight management and for some patients, lifestyle modification alone may be sufficient to achieve weight loss; evidence suggests that interventions that address nutrition, physical activity, and psychological approaches to behavioural change are more effective for weight loss than single interventions[4, 9]. Social prescribing to local non-clinical services may support lifestyle modification.
- Additional strategies may include behavioural and psychological therapy, pharmacotherapy, and bariatric surgery[13].

Refer when

Refer the patient to an appropriate healthcare provider in the following situations:

- the patient is aged below 18 years (does not preclude a patient from accessing usual pharmacy care)
- the patient is or could be pregnant or lactating
- BMI > 40 kg/m^2
- comorbidity not being managed by an appropriate healthcare provider* or that requires specialist management for weight loss
- previous bariatric surgery
- taking a medicine associated with weight gain
- inadequate response to Management Plan B (< 5 per cent loss after 12 weeks).

Reminder

*Patients with mild to moderate asthma may be suitable for management as part of the WA Enhanced Access Community Pharmacy Pilot – refer to the respective clinical protocol for information and eligibility criteria if in a participating pharmacy.

Treat (if clinically appropriate) and concurrently refer

Provide initial treatment and concurrently refer to an appropriate healthcare provider for collaborative management in the following situations:

- patients with diagnosed (or suspected) psychiatric disorders, including psychosis, schizophrenia, bipolar disorder, major depression, anxiety, eating disorder (binge eating, anorexia nervosa, bulimia), or a history of eating disorders
- patients with clinically significant nutritional (vitamin or mineral) deficiencies
- patients under active medical treatment and supervision for weight reduction
- patients with cardiovascular disease (CVD), asthma*, or chronic obstructive pulmonary disease
- patients aged > 65 years
- findings indicate further investigation of a possible comorbidity is required*.

Patient history and assessment

Each patient's needs regarding weight management and suitability for pharmacist management should be assessed on a case-by-case basis.

Patient history

Obtain sufficient information from the patient to assess the safety and appropriateness of any recommendations and medicines.

The patient history should consider:

- age
- pregnancy and lactation status (if applicable)
- weight history including highest and lowest weights (and when)
- previous weight loss and strategies used, including the degree of success and levels of medical/health practitioner support (e.g. previous drug therapy, very-low energy diets (VLED), exercise)
- recent relevant biochemical markers (see Investigations)
- medical conditions and comorbidities, including weight and non-weight related
- known, suspected or previous eating disorder (see Appendix 1)
- surgical history, including any bariatric surgery
- current and recently ceased treatments (including prescribed medicines, over-the-counter medicines, vitamins, herbs, powders (like protein powders), other supplements)
- drug allergies/adverse drug reactions
- alcohol and drug history
- smoking status
- diet history (usual intake over the last 6 month period) and fluid intake. Use objective measures (e.g. food diary, food tracking app, measure portions)
- current level of physical activity (structured and incidental activity).
- Other factors impacting upon successful weight management:
  - cooking/shopping skills
  - health and nutritional literacy
  - cooking/shopping responsibilities, including the number of people in the household
  - stage of readiness to change
  - patient support networks.

Reminder

Pharmacists can access a range of clinical information in a patient's My Health Record, including details about current and past medication history, allergies, and current medical conditions.

Examination and screening

All patients should undergo basic screening and examination for common weight-related comorbidities and eating disorders. Information to guide screening has been provided in Appendix 1. However, it is also recommended that the patient be comprehensively screened, either as part of the pilot services (if eligible) or by referral to their usual healthcare provider.

Investigations

Recommended investigations are outlined in Table 1.

If available, recent test results may be used (e.g. provided by a medical practitioner with referral or available on My Health Record) if there have been no changes to the patient's medication or health status and the test was conducted within the past 12 months.

Consider investigation for secondary cause of weight change if clinically suspected based on patients presenting signs and symptoms, e.g. thyroid dysfunction.

Table 1: Recommended investigations/tests (based on personal and clinical circumstances)

Glycated haemoglobin (HbA1c) or fasting blood glucose (FBG) (14) NB1	
Testing requirements	**Referral requirements**
• People without a previous diagnosis of diabetes. **AND** • No HbA1c or FBG test results from the previous 3 years. **AND** • At least one of the following criteria are met: - AUSDRISK score of ≥ 12 - Aboriginal and Torres Strait Islander people aged ≥ 18 years - Pacific Islander, Indian sub-continent, Southern European, North African, Latin American, Middle Eastern, or Asian background - history of gestational diabetes - polyendocrine metabolic ovarian syndrome (previously known as polycystic ovary syndrome) - taking antipsychotic medicines - aged ≥ 40 and overweight or obese - aged 18 to 40, overweight or obese, and hypertension - aged 18 to 40, overweight or obese, and clinical evidence of insulin resistance - history of a cardiovascular event - history of impaired glucose tolerance (IGT) or impaired fasting glucose (IFG) - has a first degree relative with type 2 diabetes - one or more classical symptoms of diabetes (weight loss, polyuria, polydipsia, blurred vision).	Concurrent referral to an appropriate healthcare provider is required for further investigation of diabetes when: • HbA1c of ≥ 6.5 per cent (48 mmol/mol) • fasting blood glucose ≥ 7.0 mmol/L. **Immediate/emergency referral:** HbA1c > 10 per cent (86 mmol/mol) or any blood glucose level ≥ 20.0 mmol/L is considered to be severe hyperglycaemia and is a medical emergency in patients who are unwell (signs of ketosis, dehydration, vomiting, signs or symptoms of underlying infection, confusion and/or delirium/altered level of consciousness)[15].

continued over page

Serum lipids (fasting) (including LDL-C, HDL-C and triglycerides) [16-18]	
Testing requirements	**Referral requirements**
• If lipid testing has not been performed in the previous 5 years. **AND** • Aboriginal and Torres Strait Islander people aged ≥ 30 years. **OR** • Non-Aboriginal or Torres Strait Islander people aged ≥ 45 years.	Concurrent referral to an appropriate healthcare provider for further investigation of dyslipidaemia when: • total cholesterol (TC): ≥ 5.5 mmol/L (or > 4.0 mmol/L for people on lipid modifying drug therapy) • LDL-C: ≥ 2.0 mmol/L • HDL-C ≤ 1.0 mmol/L • Triglycerides: ≥ 2.0 mmol/L.
BP measurement [19]	
Testing requirements	**Referral requirements**
All patients: • BP measurement should be conducted in accordance with the National Heart Foundation of Australia: Guidelines for the diagnosis and management of hypertension in adults 2016[19].	Concurrent referral to an appropriate healthcare provider for further investigation of hypertension and CVD: • BP ≥ 140/90 mmHg. **Immediate/ emergency referral:** Systolic BP ≥ 180 and/or diastolic BP ≥ 110 mmHg is considered to be severe hypertension and is a medical emergency in patients with signs or symptoms of a hypertensive urgency (headache or dizziness).
Thyroid stimulating hormone (TSH) [20-22]	
Testing requirements	**Referral requirements**
• If clinically suspected based on patient signs and symptoms. • Weight gain may be a symptom of hypothyroidism.	Concurrent referral to an appropriate healthcare provider for further investigation of thyroid function if: • TSH > 4 mIU/L.

NB1: Pharmacists should consider the limitations of HbA1c tests and factors that may cause hyperglycaemia and misleading test results, as per the Therapeutic Guidelines: Tests to diagnose diabetes and the RACGP: Management of type 2 diabetes[14, 15].

Develop management plan

The management of overweight and obesity, in accordance with the Australian Obesity Management Algorithm is centred around lifestyle interventions (initial weight-loss strategies) that are tailored to relevant factors for the individual[1].

Management may include more intensive interventions (secondary weight-loss strategies) if initial weight loss strategies have not been effective (if clinically indicated and appropriate)[1].

Lifestyle interventions are indicated for all patients with overweight or obesity. The Australian Obesity Management Algorithm provides guidance on the use of pharmacotherapy for patients with BMI ≥ 30 kg/m^2 [1]. Orlistat is indicated for patients with BMI ≥ 27 kg/m^2 and other cardiovascular risk factors[23].

Pharmacists should also consider referral to, and collaboration with, other members of the multidisciplinary health team, depending on the patient's needs, location, and financial means.

Management Plan A (Initial weight loss strategies)

Lifestyle modification (for relevant factors):

- Counselling and education for lifestyle modification[NB1] as per the 5As framework detailed in the RACGP Smoking, nutrition, alcohol and physical activity (SNAP) guide[24] the Handbook of Non-Drug Interventions (HANDI)[25] and the Australian Obesity Management Algorithm[1].
- It is recommended that consenting patients are referred to an appropriate healthcare provider for physical activity and psychosocial interventions, where required.

Reduced energy diets (RED) and low energy diets (LED):

- In accordance with the Australian Obesity Management Algorithm[1].
- It is recommended that consenting patients are referred to a dietitian for specialised and individualised advice and a tailored eating plan.

Management Plan B (Secondary weight loss strategies)

Management Plan B can be considered for individuals who have not adequately responded to initial weight loss strategies as described in Management Plan A, including where these may have been attempted outside of this service as part of another structured weight loss program[1].

Pharmacists must ensure that they are prescribing medicines according to the specified sections of the current online version of the Therapeutic Guidelines.

Very low energy diets (VLEDs)[NB2]:

- For individuals who have not adequately responded to a RED or LED, in accordance with individual product instructions and indications, and the Australian Obesity Management Algorithm[1].
- It is recommended that consenting patients are referred to a dietitian for specialised and individualised advice and a tailored eating plan.

Pharmacotherapy:

- For patients following Management Plan A showing less than a 5 per cent decrease in weight after 3 months **AND** with a BMI > 27 kg/m^2 (if other cardiovascular risk factors are present) or BMI > 30 kg/m^2 (no other CVD risk factors or comorbidities):
  - prescribe Orlistat, in accordance with the Australian Medicines Handbook: Orlistat [23, 26]. Liver function should be monitored. If Orlistat is unsuitable, refer to an appropriate healthcare provider for other pharmacological management.

NB1:

- For smoking cessation, refer to the WA Community Pharmacy Smoking Cessation Clinical Practice Guideline for management.
- For recommendations of alcohol consumption, refer to the Australian guidelines to reduce health risks from drinking alcohol[27].
- For advice regarding physical activity focusing on increasing energy expenditure, refer to the Physical activity and exercise guidelines for all Australians[28].
- For general diet/nutrition advice focusing on reducing energy intake and optimising diet quality as per the Australian Dietary Guidelines[29].

NB2:

- VLEDs are contraindicated in patients aged > 65 years.
- VLEDs are recommended to be used in collaboration with a dietitian and medical practitioner for periodic monitoring of biochemistry (electrolytes, creatinine, liver function tests, fasting glucose, lipids, uric acid) and haematology (full blood count, iron studies).
- Pharmacists should evaluate the risks associated with prescribing specific treatments for patients who lack access to reliable multidisciplinary support, particularly in rural and remote areas.

Setting appropriate weight management goals

Weight management is challenging for most people. Weight loss prompts compensatory physiological responses that oppose further weight loss and promote weight gain.

Weight loss goals should be set in collaboration with the patient and reviewed regularly. Targets and goals should be patient-centred and individualised, and encourage sustainable weight loss that can be maintained over the long-term[1, 9].

A weight loss of between 5 per cent and 10 per cent is achievable for most overweight adults and will provide cardiovascular and other health benefits.

Encourage patients to focus on their achievements and progress, rather than what they have not achieved[30, 31]. In some cases, it may be more useful to encourage them to focus on preventing weight gain than trying to lose weight[32].

Confirm management is appropriate

Consult the *Australian Medicines Handbook*, the *Australian Obesity Management Algorithm* and other relevant references to confirm that management is appropriate, including for:

- contraindications and precautions
- drug interactions
- pregnancy and lactation.

Communicate agreed management plan

Comprehensive advice and counselling (including supporting written information if required), should be provided to the patient regarding the weight management plan. Relevant information may include:

- instructions for individual product and medicine use
- non-pharmacological measures
- how to manage adverse effects, including serious adverse effects requiring medical care
- importance of completing any recommended screening or blood tests, and when to return for follow up.

A Weight Management Plan template has been provided in Appendix 2 for guidance.

It is the pharmacist's responsibility to ensure the suitability and accuracy of any resources and information provided to patients (and/or parents/caregivers), and compliance with all copyright conditions.

The agreed management plan should be shared with members of the patient's multidisciplinary healthcare team, with the patient's consent.

Patient resources

- Western Australia:
  - Healthy WA
  - LiveLighter
- Queensland Government websites:
  - Staying healthy
  - Healthier Happier
- Queensland Health: Nutrition Education Materials
- Baker Heart and Diabetes Institute: Health Hub fact sheets
- Australian Government: Eat for health calculators

Clinical review

Follow up and clinical review is an important component of overweight and obesity management. Clinical review with the pharmacist (or the patient's chosen healthcare provider) should occur in line with recommendations in the *Australian Obesity Management Algorithm*.

Clinical review on a monthly basis is recommended to monitor progress towards the weight loss target, efficacy of lifestyle modification, and to monitor for adverse effects.

Clinical review appointments may include:

- weight and waist circumference measurements, and BMI calculation
- blood pressure monitoring
- brief advice and reinforcement of lifestyle modification
- review of adverse effects.

Pharmacists may also consider repeating laboratory testing (where indicated).

For patients continuing therapy, follow-up should be individualised to the patient's clinical presentation, response to treatment, and therapeutic goals.

Pharmacists should prescribe a quantity of medicine (including repeats), that aligns with the expected duration of therapy, ensuring sufficient supply until the patient's next review.

Pharmacist resources

- Western Australia:
  - Clinician Assist WA
    - Dietitian Requests
    - Nutrition and Weight Management – Older Adults
  - WA Healthy Weight Action Plan 2019-2024
  - SHAPE: Education and training resources for conversations on weight management for health professionals.
- Therapeutic Guidelines:
  - Cardiovascular
  - Diabetes
  - Respiratory
  - Psychotropic
- Australian Medicines Handbook:
  - Orlistat
  - Liraglutide
  - Naltrexone with bupropion
  - Phentermine
  - Semaglutide
  - Tirzepatide
- Australian Pharmaceutical Formulary and Handbook (APF): Treatment guideline for pharmacists (Weight management)
- The Australian Obesity Management Algorithm: A simple tool to guide the management of obesity in primary care
- Royal Australian College of General Practitioners:
  - Smoking, nutrition, alcohol, physical activity (SNAP): A population health guide to behavioural risk factors in general practice
  - Guidelines for preventive activities in general practice
  - Handbook of non-drug interventions (HANDI)
- National Health and Medical Research Council:
  - Australian Dietary Guidelines
  - Australian Guidelines to reduce health risks from drinking alcohol
- Australian Government Department of Health and Aged Care: Physical activity and exercise guidelines for all Australians
- Australian CVD risk calculator: CVDCheck
- StatPearls: Obesity and Comorbid Conditions
- Australian Family Physician:
  - Pharmacotherapy for obesity
  - Obesity and weight management at menopause (includes detailed information on VLEDs)
  - Bariatric-metabolic surgery: A guide for the primary care physician
  - The bariatric surgery patient: nutrition considerations
- Australian Journal of General Practice: Bariatric surgery
- The Australian and New Zealand Obesity Society
- Australian peak body for obesity: The Obesity Collective
- Diabetes, Metabolic syndrome, and Obesity: Medications that cause weight gain and alternatives in Canada: A narrative review
- Butterfly Foundation: Eating disorders and body image support
- InsideOut Institute for Eating Disorders

Appendix 1 – Screening for weight related co-morbidities

Co-morbidity screening (based on personal and clinical circumstances)

Obstructive Sleep Apnoea [1, 33, 34]

Screening using the STOP-BANG questionnaire

STOP	Yes (=1)	No (=0)
Do you **SNORE** loudly (louder than talking or loud enough to be heard through closed doors)?		
Do you often feel **TIRED**, fatigued, or sleepy during daytime?		
Has anyone **OBSERVED** you stop breathing during your sleep?		
Do you have or are you being treated for high blood **PRESSURE**?		
BANG		
BMI more than 35 kg/m^2?		
AGE over 50 years?		
NECK circumference > 40 cm?		
GENDER: Male?		
Total score		

Referral requirements

Concurrent referral to an appropriate healthcare provider for further investigation is recommended for all patients suspected of having sleep apnoea or another weight-related respiratory condition, for example:

- patients with at least one risk factor or comorbidity + multiple symptoms of sleep apnoea
- a score of ≥ 3 on the STOP-Bang questionnaire.

BMI and waist circumference [4, 6, 9, 35]

Requirements

All patients:

- Measurement of BMI and waist circumference at commencement and regular reviews (recommended monthly) is required to inform the management plan and assist with patient education regarding risk factors for obesity comorbidities.
- A larger waist circumference indicates visceral fat deposits and central obesity:
  - males with a waist circumference ≥ 94 cm are at increased risk of CVD and other comorbidities (≥ 102 cm = a greatly increased risk, especially if BMI > 25 kg/m^2)
  - females with a waist circumference ≥ 80 cm are at increased risk (≥ 88 cm = a greatly increased risk, especially if BMI > 25 kg/m^2).

Referral requirements

Referral to an appropriate healthcare provider or specialist weight loss service is recommended for people with:

- BMI > 40 kg/m^2.

Mental health/psychological distress[1, 36, 37]	
Screening requirements	**Referral requirements**
All patients: • Pharmacists may use a validated screening tool such as the Kessler Psychological Distress Scale (K10)[38].	Concurrent referral to an appropriate healthcare provider is recommended for patients suspected of having a mental health disorder or in psychological distress, for example: • patients who score ≥20 on the K10.
Eating disorders[39, 40]	
Screening requirements	**Referral requirements**
All patients: • Pharmacists may use a validated screening tool such as the SCOFF Questionnaire or InsideOut Screener.	Concurrent referral to an appropriate healthcare provider is recommended for patients with or suspected of having an eating disorder.
Diabetes [1, 14, 15]	
Screening requirements	**Referral requirements**
Patients aged ≥ 40 years: • Risk of developing type 2 diabetes should be estimated every 3 years using the validated Australian type 2 Diabetes Risk Assessment Tool (AUSDRISK). All patients: • Clinical signs and symptoms of insulin resistance including acanthosis nigricans, skin tags, central obesity, hirsutism.	Not required for screening, proceed with recommended investigations/ tests in Table 1.
Dyslipidaemia[9, 41, 42]	
Screening requirements	**Referral requirements**
All patients: • Family history of familial hypercholesterolaemia. • Clinical signs and symptoms including tendon xanthomata, arcus cornealis before 45 years of age and xanthelasma.	Concurrent referral to an appropriate healthcare provider is recommended for patients with a history of familial hypercholesterolemia.

Appendix 2 – Weight management plan

Weight management plan				
Plan date:				
Name:			Date of birth:	
Date of commencement:				
Pharmacy details				
Pharmacist name:			Phone number:	
Pharmacy name and address:			Opening hours:	
Baseline weight and measurements				
Weight (kg):		BMI:	Waist circumference (cm):	
Weight loss goal tracker				
Week beginning	Goal weight	Actual weight	BMI	Waist (cm)

My lifestyle prescription	
Diet and nutrition	• Referral to a dietitian for an individualised eating plan and education • Summary of nutritional advice for a balanced diet from the Australian Dietary Guidelines - more of/ increase... - less of/ limit... • Specific advice and food recommendations and strategies tailored for each individual's barriers and risks • Education and advice on interpreting nutritional labels and referral to resources to support cooking and shopping skills
Exercise and physical activity	• Enter recommendations for physical activity for patient's age and capability based on the Physical activity and exercise guidelines for all Australians: - informal exercise e.g. building exercise into everyday activities - formal exercise e.g, walking (moderate intensity) for 30 minutes 5 days of the week, strength building 2 days per week - individualised guidance for building up to recommendations • If required: Referral to a GP, exercise physiologist, physiotherapist or other supports for safe exercise
Other lifestyle modification strategies	• If required: smoking cessation – Refer to service smoking cessation program and/or other supports e.g. Quitline or GP • If required: referral to a GP, psychologist or clinician for mental health support • Specific advice for sleep and if required referral to a GP for management of obstructive sleep apnoea • If required: summary of advice regarding alcohol consumption based on the Australian guidelines to reduce health risks from drinking alcohol

References

1. Markovic TP, Proietto J, Dixon JB, Rigas G, Deed G, Hamdorf JM, et al. The Australian Obesity Management Algorithm: A simple tool to guide the management of obesity in primary care. Obesity Research & Clinical Practice. 2022;16(5):353-63.
2. Jordan M, Harmon, J,. Pharmacist interventions for obesity: improving treatment adherence and patient outcomes. Integr Pharm Res Pract. 2015;4:79-89.
3. Qasim A, Turcotte M, de Souza RJ, Samaan MC, Champredon D, Dushoff J, et al. On the origin of obesity: identifying the biological, environmental and cultural drivers of genetic risk among human populations. Obes Rev. 2018;19(2):121-49.
4. National Health and Medical Research Council. Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia (rescinded). Melbourne: Commonwealth of Australia; 2013.
5. Australian Institute of Health Welfare. Inequalities in overweight and obesity and the social determinants of health. Canberra: AIHW; 2021.
6. Australian Institute of Health and Welfare. Overweight and obesity. Canberra: Australian Institute of Health and Welfare; 2024.
7. World Health Organisation (WHO). Overweight and Obesity. WHO; 2024 [cited 2025 April 2]. Available from: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight.
8. Centers for Disease Control and Prevention. Body Mass Index (BMI). Bethesda, U.S.: U.S. Department of Health and Human Services; 2024 [cited 2025 April 2]. Available from: https://www.cdc.gov/bmi/index.html.
9. Therapeutic Guidelines: Cardiovascular. Melbourne: Therapeutic Guidelines Limited; 2023 [cited 2025 April 2]. Available from: https://tgldcdp.tg.org.au/topicTeaser?guidelinePage=Cardiovascular&etgAccess=true.
10. Chisholm-Burns M, Kim Lee, J, Spivey, CA, Slack, M, Herrier, RN, Hall-Lipsy, E, et.al. US pharmacists' effect as team members on patient care: systematic review and meta-analyses. 2010;48(10):923-33.
11. Foster D, Sanchez-Collins, S, Cheskin, LJ,. Multidisciplinary Team-Based Obesity Treatment in Patients With Diabetes: Current Practices and the State of the Science. Diabetes Spectr. 2017;4(30):244-9.
12. Grima M, Dixon J. Obesity: Recommendations for management in general practice and beyond. Australian Family Physician. 2013;42(8):532-41.
13. Tchang BG, Saunders KH, Igel LI. Best Practices in the Management of Overweight and Obesity. Med Clin North Am. 2021;105(1):149-74.
14. The Royal Australian College of General Practitioners (RACGP). Management of type 2 diabetes: A handbook for general practice. East Melbourne: RACGP; 2024 [cited 2025 April 2]. Available from: www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/management-of-type-2-diabetes/introduction.
15. Therapeutic Guidelines: Diabetes (Management of first presentation with hyperglycaemia). Melbourne: Therapeutic Guidelines Limited; 2022 [cited 2025 April 2] Available from: https://tgldcdp.tg.org.au/viewTopic?etgAccess=true&guidelinePage=Diabetes&topicfile=management-of-first-presentation-with-hyperglycaemia&guidelinename=Diabetes&sectionId=toc_d1e62#toc_d1e62.
16. The Royal Australian College of General Practitioners (RACGP). Guidelines for preventive activities in general practice. East Melbourne: RACGP; 2024. Available from: http://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/preventive-activities-in-general-practice/about-the-red-book
17. CSIRO. Cholesterol facts. CSIRO; 2022 [cited 2025 April 2]. Available from: https://www.csiro.au/en/research/health-medical/nutrition/cholesterol-facts.
18. National Aboriginal Community Controlled Health Organisation and The Royal Australian College of General Practitioners. National guide to preventive healthcare for Aboriginal and Torres Strait Islander people: Recommendations. 4th edition. East Melbourne, Vic: RACGP, 2024
19 National Heart Foundation of Australia. Guideline for the diagnosis and management of hypertension in adults. Melbourne: National Heart Foundation of Australia; 2016.

20. The Royal College of Pathologists of Australasia - RCPA manual. Thyroid Stimulating Hormone; 2024 [cited 2024 April 2]. Available from: https://www.rcpa.edu.au/Manuals/RCPA-Manual/Pathology-Tests/T/Thyroid-stimulating-hormone

21. Therapeutic Guidelines: Bone and Metabolism (Thyroid disorders: overview). Melbourne: Therapeutic Guidelines Limited; 2019 [cited 2025 April 2]. Available from: https://tgldcdp.tg.org.au/viewTopic?etgAccess=true&guidelinePage=Bone%20and%20Metabolism&topicfile=thyroid-disorders-overview

22. The Royal College of Pathologists of Australasia – Pathology Tests Explained. Thyroid Function Tests; 2025 [cited 2025 April 2]. Available from: https://pathologytestsexplained.org.au/ptests.php?q=Thyroid+Function+Tests

23. Australian Medicines Handbook: Orlistat. Adelaide: Australian Medicines Handbook Pty Ltd; 2025 [cited 2025 April 2]. Available from: https://amhonline.amh.net.au/chapters/gastrointestinal-drugs/other-gastrointestinal-drugs/orlistat?menu=hints.

24. The Royal Australian College of General Practitioners (RACGP). Smoking, nutrition, alcohol, physical activity (SNAP): A population health guide to behavioural risk factors in general practice. East Melbourne: RACGP; 2015 [cited2025 April 2]. Available from: https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/snap.

25. The Royal Australian College of General Practitioners (RACGP). Handbook of Non-Drug Interventions (HANDI). East Melbourne: RACGP; 2020 [cited2025 April 2]. Available from: https://www.racgp.org.au/clinical-resources/clinical-guidelines/handi.

26. Perrault L. Obesity in adults: Drug therapy. UpToDate. 2025. Available from: https://www.uptodate.com/contents/obesity-in-adults-drug-therapy?search=obesity%20in%20adults&source=search_result&selectedTitle=3~150&usage_type=default&display_rank=3

27. National Health and Medical Research Council: Australian Research Council and Universities Australia. Australian Guidelines to Reduce Health Risks from Drinking Alcohol. Canberra: Commonwealth of Australia; 2020.

28. Commonwealth of Australia: Department of Health. Physical activity and exercise guidelines for all Australians Canberra: Commonwealth of Australia: Department of Health; 2021 [cited 2025 April 2]. Available from: https://www.health.gov.au/health-topics/physical-activity-and-exercise/physical-activity-and-exercise-guidelines-for-all-australians.

29. National Health and Medical Research Council. Australian Dietary Guidelines. Canberra: National Health and Medical Research Council; 2013. Available from: https://www.nhmrc.gov.au/sites/default/files/documents/australian-dietary-guidelines-2013.pdf

30. Hall K, Kahan S. Maintenance of lost weight and long-term management of obesity. Med Clin North Am 2018;102(1):183–97.

31. Sumithran P, Proietto J. The defence of body weight: a physiological basis for weight regain after weight loss. Clin Sci (Lond) 2013;124(4):231–41.

32. Perdomo C, Cohen R, Sumithran P, et al. Contemporary medical, device, and surgical therapies for obesity in adults. Lancet 2023;S0140-6736(22)02403-5.

33. Toronto Western Hospital University Health Network. The Official STOP-Bang Questionnaire [Webpage]. Toronto: University of Toronto; 2012 [cited 2025 April 2]. Available from: http://www.stopbang.ca/osa/screening.php.

34. Therapeutic Guidelines: Respiratory (Sleep-disordered breathing). Melbourne: Therapeutic Guidelines Limited; 2020 [cited 2025 April 2]. Available from: https://tgldcdp.tg.org.au/viewTopic?etgAccess=true&guidelinePage=Respiratory&topicfile=asthma-introduction-and-diagnosis&guidelinename=auto&sectionId=sleep_disordered_breathing#sleep_disordered_breathing.

35. Commonwealth of Australia: Department of Health. Body mass index (BMI) and waist measurement Canberra: Commonwealth of Australia: Department of Health; 2021 Available from: https://www.health.gov.au/topics/overweight-and-obesity/bmi-and-waist.

36. Andrews G, Slade T. Interpreting scores on the Kessler Psychological Distress Scale (K10). Aust N Z J Public Health. 2001;25(6):494-7.

37. Kessler RC, Andrews G, Colpe LJ, Hiripi E, Mroczek DK, Normand SLT, et al. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychological Medicine. 2002;32(6):959-76.

38. Transport Accident Commission - TAC. Kessler's Psychological Distress Scale (K10) [cited 2025 April 2]. Available from: https://www.tac.vic.gov.au/files-to-move/media/upload/k10_english.pdf

39. Inside Out Institute for Eating Disorders. The SCOFF Questionnaire [cited 2025 April 2]. Available from: https://insideoutinstitute.org.au/resource-library/the-scoff-questionnaire

40. Inside Out Institute for Eating Disorders. InsideOut Screener [cited 2025 April 2]. Available from: https://insideoutinstitute.org.au/screener/

41. Dermnet. Xanthoma; 2020 [cited 2025 April 2]. Available from: https://dermnetnz.org/topics/xanthoma.

42. Therapeutic Guidelines: Cardiovascular (Lipid modification). Melbourne: Therapeutic Guidelines Limited; 2025 [cited 2025 April 2]. Available from: https://tgldcdp.tg.org.au/topicTeaser?etgAccess=true&guidelinePage=Cardiovascular&topicfile=c_CVG_Lipid-modificationtopic_1&guidelinename=auto&sectionId=c_CVG_Lipid-modificationtopic_1#c_CVG_Lipid-modificationtopic_1

Disclaimer

All information and content in this material is provided in good faith by the Department of Health Western Australia and is based on sources believed to be reliable and accurate at the time of development and publication. While every effort has been made to ensure the accuracy of the material, no guarantee, representation, or warranty is provided of the accuracy, reliability, or suitability of any information contained in the materials. By accessing the materials, the users acknowledge and agree that the materials are intended for informational and educational purposes only and must not be relied on or used as a substitute for the user's professional judgment or own clinical assessment of patients. Users should consult relevant clinical guidelines and resources, regulatory authorities, and professional bodies, where appropriate.

To the maximum extent permitted by law, the State of Western Australia (which includes the Department of Health Western Australia, the Minister for Health, and their respective officers, employees, contractors, and agents) expressly disclaim liability (including without limitation, liability in negligence) to users or any other person for loss, damage, injury, adverse outcomes, costs, or expenses, arising from reliance on, interpretation of, or use of the materials. To the maximum extent permitted by law, the State of Western Australia makes no warranties that the materials available on or through any links provided in this publication are free of infection by computer viruses or other contamination.

Feedback

To provide feedback on this clinical practice guideline, please email DOH.EACPP@health.wa.gov.au

This document is based on clinical guidelines/protocols originally developed by Queensland Health for the Queensland Community Pharmacy Pilots. Queensland Health is acknowledged as the source of the original material. Queensland Health does not accept responsibility for the content or accuracy of any adaptations, or for any decisions made based on the material presented in this document.

This document can be made available in alternative formats on request.

Produced by Clinical Excellence Division

CED-015081 AUG'26