

# A synthesis of selected national Australian guidelines on the general practice management of adult patients who are overweight or obese

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## Background

A general practitioner's (GP's) daily workload includes an ever-increasing number of patients who are overweight and obese. A number of Australian guidelines are aimed at assisting GPs who are managing this group of adult patients.

## Objective

The objective of this article is to synthesise selected national Australian guidelines for GPs in the management of adults who are overweight or obese.

## Method

Relevant national guidelines were chosen and reviewed by three GPs. The recommendations were amalgamated and any discrepancies were discussed within the research team.

## Results

We presented a synthesis of the guidelines under headings that will assist GPs in a structured approach to managing patients who are overweight and obese.

## Discussion

This synthesis forms the basis for developing a practical toolkit to assist GPs in managing adult patients who are overweight and obese.

As the proportion of the Australian population who are in the unhealthy weight range increases,<sup>1</sup> the majority of the day-to-day workload of general practitioners (GPs) will include patients who are overweight or obese. In addition, patients who are overweight and obese do present to their GPs specifically for assistance with losing weight.<sup>2,3</sup>

Overweight and obesity, along with hypertension and smoking, are significant contributors to the burden of disease in Australia.<sup>4</sup> In a Western Australian cohort, obesity outranked tobacco smoking for disability adjusted life years (DALYs), meaning obesity was found to be responsible for the most fatal and non-fatal illness in the state.<sup>5</sup> Having a weight that is outside the healthy range has an impact on every body system and is a risk factor for developing a number of chronic illnesses.<sup>4</sup>

The most common definition for clinical practice guidelines is 'systematically developed statements to assist practitioner and patient decisions about appropriate healthcare for specific clinical circumstances'.<sup>6</sup> There has been a huge increase in the number of guidelines for clinical management of many conditions, including obesity, that have been directed at GPs.<sup>7,8</sup> Obviously, this influx of information makes it difficult for clinicians to amalgamate and process within the consultation.<sup>9,10</sup> Phillips and Hall<sup>11</sup> have continued this commentary on the use of guidelines and how clinicians apply them in their daily work. They found that most guidelines are not presented in a way that is easy for GPs to use during consultations with a patient.

There are a number of guidelines, aimed at GPs, from both government and non-government organisations that give advice on managing adult patients who are overweight or obese. The aim of this research was to identify and synthesise for GPs national Australian guidelines on the treatment of adult patients who are overweight and obese. This work forms the preliminary

basis for a practical toolkit that GPs can use in their day-to-day work with adults who are overweight or obese.

## Methods

We reviewed the following national Australian guidelines for the management of adult patients who are overweight and obese in primary care:

- the National Health and Medical Research Council's (NHMRC's) *Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia*<sup>12</sup>
- the National Heart Foundation's *Physical activity and energy balance*<sup>13</sup>
- The Royal Australian College of General Practitioners' (RACGP's) *Guidelines for preventive activities in general practice ('Red book')*<sup>14</sup>
- the RACGP's *National guide to a preventive health assessment for Aboriginal and Torres Strait Islander People*<sup>15</sup>
- the RACGP and Diabetes Australia's *General practice management of type 2 diabetes – 2014–15*.<sup>16</sup>

The NHMRC *Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia* was selected as it is the overarching document guiding primary care management in Australia. The RACGP documents were chosen as they are the most nationally relevant to GPs in Australia. The National Heart Foundation and the RACGP and Diabetes Australia guidelines were selected as they relate to common chronic conditions seen by GPs that are affected by obesity, cardiovascular disease and diabetes. It is appreciated that this list of guidelines is not exhaustive; however, the selected guidelines are all relevant to GPs working across Australia.

The guidelines were reviewed by the four authors (all clinical GPs). The four authors included two senior GPs, a new fellow and a general practice registrar. They work in clinically urban settings with general as well as vulnerable and culturally diverse populations. The GPs have varying academic experience, ranging from an

academic registrar post to professor of general practice.

Guidelines were analysed using five predetermined themes based on the clinical GPs' experiences of managing patients who are overweight or obese. The themes were:

- nutrition (knowledge-based)
- physical activity (knowledge-based)
- logistics of management (eg appointment frequency)
- measurement and assessment (what the GP should investigate in this population)
- lifestyle recommendations.

Guideline recommendations were amalgamated where possible. Any discrepancies found between the guidelines were compared with best available evidence and then discussed among the research team.

We reported on the time taken to complete this process to determine if it would be practical for individual GPs to do this as part of their clinical work.

The AGREE II tool<sup>17</sup> was used by the four authors and the amalgamation of their scores was used to determine the strength of each set of guidelines reviewed. The AGREE II tool is an international instrument that assesses the useability and relevance of clinical practice guidelines. The tool reports on six domains:

- Scope and purpose
- Stakeholder involvement
- Rigour of development
- Clarity of presentation
- Applicability
- Editorial independence.

The four reviewers scored the selected guidelines using questions that are part of the AGREE II tool. These scores were then put together to give a percentage – the higher the percentage, the better the guidelines in that particular domain. The full user manual for the AGREE II tool is available online for interested readers ([www.agreetrust.org](http://www.agreetrust.org)).

## Results

Over 200 pages of text were reviewed. This took approximately 50 hours and

included reading, summarising and then synthesising the information among the group.

The AGREE II tool was applied to all five guidelines and the results are presented in Table 1. As shown in Table 1, the NHMRC guidelines were the strongest across all domains apart from Applicability, where the diabetes guidelines ranked slightly higher. This suggests that the diabetes guidelines were easier for the clinician to apply in the clinical context. The AGREE II tool does not give set points for when a set of guidelines is considered to be of worthy quality. However, it can be seen from the percentages presented that the National Heart Foundation guidelines ranked lower overall in their methodological rigour. This rigour is important to consider when weighing up differing advice in the guidelines.

The area where the guidelines disagree includes the amount of physical activity recommended. The National Heart Foundation<sup>6</sup> recommends the most physical activity – 60 minutes of moderate-intensity exercise per day. The NHMRC guidelines<sup>5</sup> recommend 300 minutes of moderate intensity or 150 minutes of vigorous activity per week, while emphasising reduced dietary intake. More weight was given to the NHMRC recommendations as this set of guidelines scored the highest on the AGREE II tool. Only the NHMRC guidelines<sup>5</sup> give clear recommendations on how often patients should be seen by a health practitioner.

The guidelines all focus on three main areas: nutrition, exercise and psychological strategies. Each set of guidelines places a different emphasis on each of the three main areas. The review was structured around the five predetermined themes.

## Logistics

- Frequent review – each set of guidelines recommends frequent contact with a health professional. The NHMRC guidelines<sup>12</sup> give the clearest direction, suggesting fortnightly review for at least three months and then ongoing review at the discretion

**Table 1. AGREE II tool (applied by four reviewers)**

	NHMRC (%)	Heart Foundation (%)	RACGP Red book* (%)	RACGP national guide <sup>†</sup> (%)	Diabetes Australia (%)
Domain 1: Scope and purpose	86.1	56.9	79.2	80.6	77.8
Domain 2: Stakeholder involvement	88.9	37.5	65.3	66.7	58.3
Domain 3: Rigour of development	91.1	15.1	64.1	69.3	59.9
Domain 4: Clarity of presentation	87.5	61.1	79.2	75.0	77.8
Domain 5: Applicability	62.5	30.2	57.3	59.4	66.7
Domain 6: Editorial independence	81.3	16.7	29.2	70.8	41.7

\*Guidelines for preventive activities in general practice; <sup>†</sup>National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people  
NHMRC, National Health and Medical Research Council

of the patient and health professional (this contact is with any health professional, not necessarily the GP at every visit).

- Referral to other healthcare providers to assist in patient management – this is strongly recommended by the NHMRC guidelines.<sup>5</sup> The impact that an individual practitioner makes in a multidisciplinary team is not clear from current evidence.
- Promoting principles of self-management – all guidelines encourage patients to become involved in their own care through education, planning and review.
- Long-term follow-up – all guidelines recognise the chronic nature of overweight and obesity, and recommend ongoing care and contact with a health professional.

## Measurement and assessment

- Body mass index (BMI) and waist circumference – these measurements remain the standard for assessing risk and monitoring progress.
- Awareness of factors that have an impact on BMI – a number of factors influence correct BMI interpretation, including ethnicity, muscle mass, age, and distribution of adiposity (Table 2).
- Cardiovascular disease assessment through blood tests (eg lipids) – the overall likelihood of a medical cause for overweight and obesity is low. Blood

**Table 2. Factors that influence the interpretation of BMI**

Factor	How it affects interpretation of BMI
High muscle mass (eg athlete)	Less risk at higher BMI, consider higher BMI cut-off
Gender	Women have higher ratios of body fat at equivalent BMI to men
Age	Loss of muscle mass leads to increased body fat in older age at equivalent BMI in younger person
Distribution of body fat	Central adiposity with reduced muscle mass may lead to no change in the BMI, but increased health risk
Aboriginal peoples	Have a relatively high limb-to-trunk ratio, so a lower threshold for at-risk BMI may be considered; waist circumference may be a more accurate assessment of risk
South Asian, Chinese and Japanese peoples	Have higher body fat ratio at lower BMI, consider lower threshold for at-risk BMI
Torres Strait and Pacific Islander peoples	Have a higher proportion of lean body muscle mass, so a higher threshold for at-risk BMI can be considered

*BMI, body mass index*

tests to search for an underlying cause do not need to be carried out unless there are other symptoms or failure to lose weight;<sup>12</sup> however, blood tests for cardiovascular disease risk profiling may be appropriate (eg fasting lipids, fasting blood sugar level, urea, electrolytes, creatinine and liver function tests).<sup>12</sup>

## Lifestyle and other

- Behavioural interventions – these are techniques (eg goal setting, self-

monitoring, stimulus control, cognitive restructuring, problem solving) that are mostly from cognitive behavioural therapy that can help patients reflect and plan to make behavioural change.<sup>12</sup>

- Awareness of cultural issues – culture, including that of Aboriginal and Torres Strait Islander peoples, may influence lifestyle choices (eg food choices and preferences, social and family responsibilities).<sup>12,15,16</sup>

## Nutrition

- Each set of guidelines approaches nutrition-related information in a different way.
- Reduced caloric intake is the key underlying message regardless of the techniques recommended.
- Reducing portions and focusing on snacks and drinks are common to all guidelines.
- The key message is that there will not be weight loss without an energy deficit (ie caloric content of intake must be less than energy expenditure).

## Physical activity

- Physical activity is given a different emphasis in different guidelines.
- The benefits of physical activity go beyond weight loss, with some benefit at all levels of weight.<sup>13</sup>
- Each set of guidelines gives practical tips, particularly around incidental exercise and building movement and activity into everyday life.

## Discussion

There are multiple Australian guidelines to assist GPs in the treatment of patients who are overweight or obese, but they are not in a readily usable format for the general practice setting. The time it took the research team to go through each set of guidelines and synthesise them would not be available to a busy clinical GP. In addition, most of the guidelines give some direction and general statements about the type of intervention that should be offered, but a clear and concise program for GPs to implement does not exist.

The three main knowledge areas that need to be addressed in patients who are overweight and obese are:

- nutrition
- physical activity
- behavioural interventions.

Interestingly, nutrition and physical activity were two of the predetermined themes, but behavioural interventions emerged from the predetermined Lifestyle theme. Without action in all three areas, weight loss is unlikely to

occur.<sup>12</sup> In the guidelines reviewed for primary care, the area that usually has least attention in GP management is behavioural interventions. However, GPs are using these skills when managing other behavioural change (eg smoking, or managing chronic disease such as diabetes).<sup>18</sup> GPs should be supported in applying these skills to the management of patients who are overweight and obese in primary care.

Each set of the guidelines recommends referral to other health professionals for assistance with nutrition and physical activity. The NHMRC guidelines suggest various health professionals, but with the current evidence base, they are unable to comment on which provider is likely to have the highest impact. Possible professionals to include are practice nurses, exercise physiologists, dietitians, Aboriginal health workers, multicultural health workers, psychologists, diabetes educators and physiotherapists.

The overall framework for managing adults who are overweight or obese encourages frequent, long-term contact with a health professional. A regular, long-term GP is perfectly positioned to act as this ally in care for the patient. A regular GP knows the patient within their own social context and can provide individualised management advice to suit the patient and their lifestyle. GPs can provide this care on an ongoing basis over many years, giving them the ability to reinforce and review lifestyle goals.

It is recognised that GPs working with specific populations or in specialised environments may have local guidelines for obesity management that are more relevant to their practice. The inclusion of national guidelines in this study was deliberate in order to maximise the relevance of the findings to GPs across Australia. GPs that work in 'non-mainstream' environments should be guided by locally developed guidelines, should they exist.

The lack of a practical management program for GPs to use with adult patients who are overweight or obese in primary

care is troubling. Although the guidelines give recommendations around principles of care, implementing these principles in a busy clinical environment without any resources is challenging. This synthesis of current guidelines formed the basis for developing a weight management program for adults who are overweight and obese that can be delivered by GPs in a primary care setting. The program is now being piloted in the Australian Capital Territory.

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