

# Basic Obesity Management

Dr Chiang Shu Hui Grace

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Obesity is a chronic multisystem disease and serious global public health threat associated with increased morbidity and premature mortality.<sup>1,2</sup> Obesity and its determinants are risk factors for three of the four leading causes of non-communicable diseases (NCDs) worldwide, including cardiovascular diseases, type 2 diabetes, and certain cancers.<sup>3,4</sup> The prevalence of overweight and obesity has nearly tripled over the past 40 years, reaching epidemic proportions globally.<sup>3</sup> By 2025, The Global Burden of Disease data suggests that nearly 268 million children and adolescents across 200 countries will be overweight, while 124 million will have obesity.<sup>7</sup> Obesity has now emerged as a major chronic disease and societal burden,<sup>4</sup> that has detrimental consequences on population health and well-being, with at least 2.8 million people dying each year as a result of being overweight or obese.<sup>3</sup> The annual cost of obesity is estimated to be about US\$2 trillion,<sup>5</sup> representing 2.8 percent of the world's GDP.<sup>6</sup>

Obesity is broadly defined as excess body weight for a given height. The pathogenesis of obesity is complex, involving a combination of environmental, sociocultural, physiological, medical, behavioural, genetic, epigenetic, and many other factors contributing to causation and persistence.<sup>8</sup>

Effective and adequate obesity management requires a multidisciplinary and transdisciplinary approach.<sup>9</sup> While individual and medical management is important, multiple sectors of society will have to be engaged and involved to effect change in the multiple external factors that influence obesity such as food systems and food environments, access to health services, education and public policies.<sup>4</sup>

This issue will provide an update on the latest evidence-based treatment options in basic obesity management.

In Unit 1, Drs Tham Kwang Wei and Benjamin Lam offer a concise explanation about the biology of weight regulation as a basis for understanding obesity as a disease and detail the complex and multifactorial pathogenesis of obesity.

In Unit 2, Drs Amanda Lim and Benjamin Lam elaborate on how to approach a patient with obesity through a practical 5As framework (Ask, Assess, Advise, Agree, and Assist) for obesity counselling.

In Unit 3, Ms Izabela Kerner discusses the various evidence-based dietary interventions for clinical practice.

In Unit 4, Dr Ivy Lim details the type of physical activities to achieve weight loss and contextualises the considerations in exercise prescription for obese or overweight individuals with comorbidities such as diabetes, hypertension, and osteoarthritis.

In Unit 5, Dr Tham Kwang Wei writes about the general approach to pharmacotherapy in obesity management and the various anti-obesity medications currently approved.

In Unit 6, Dr Shanker Pasupathy discusses the indications of bariatric surgery and provides a case for bariatric surgery as a viable treatment option in obesity.

In Unit 7, Drs Elaine Chew and Chin Xinyi provide a comprehensive approach to understanding and managing childhood and adolescent obesity.

In Unit 8, Drs Lee Yingshan and Kalaiyarasi Kaliyaperumal explore the underlying associations of non-alcoholic fatty liver disease and polycystic ovarian syndrome with insulin resistance as obesity-related diseases and provide advice on screening and management of these conditions.

In this issue, A/Prof Goh Lee Gan has also selected 10 current readings on topics related to basic obesity management. These readings include articles on managing obesity across an individual's lifespan, long-term weight loss strategies, the influence of obesity on diseases, and the pharmacotherapy of anti-obesity drugs.

## REFERENCES

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