

# Weight gain, obesity

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### Rationale

Obesity is a complex multifactorial chronic disease that develops from social, behavioural, physiological, and metabolic interactions. It is a risk factor for a wide range of serious illnesses.

### **Causal Conditions**

(list not exhaustive, generally multifactorial)

- Increased energy intake
  - a. Dietary (e.g., progressive hyperphagic, frequent eating, high fat diet, overeating)
  - b. Social and behavioural (e.g., socioeconomic, psychological)
  - c. latrogenic (e.g., drugs, hormones, hypothalamic surgery)
- Decreased energy expenditure (e.g., sedentary lifestyle, smoking cessation)
- Neuroendocrine (e.g., hypothyroidism, Cushing syndrome, polycystic ovarian syndrome)
  - a. Genetic (e.g., Prader-Willi)
  - b. Epigenetic

# **Key Objectives**

Given a patient with weight gain or obesity, the candidate will diagnose the cause, severity, and complications, and will initiate an appropriate management plan. In particular, he will determine the degree and pattern of obesity, exclude primary treatable causes, and assess the risk of associated morbidity and mortality.

# **Enabling Objectives**

Given a patient with weight gain or obesity, the candidate will

- list and interpret critical clinical findings, including those based on
  - a. a determination of the presence of obesity using defined criteria in adult and pediatric populations;
  - an assessment of the risk of morbidity and mortality by determining age at the onset of obesity, its duration, the weight gained after 18 years of age, and the amount of central adiposity and gender;
  - c. a measurement of waist circumference or waist-to-hip ratio and a calculation of body mass index:
  - d. a screening for co-morbid conditions (e.g., hypertension, diabetes mellitus, dyslipidemia, sleep apnea, hirsutism, amenorrhea);
- list and interpret critical investigations, including
  - a. investigation for a neuroendocrine cause of obesity, if required;
  - appropriate laboratory investigations to screen for co-morbid conditions and complications;
- construct an effective initial management plan, including
  - a. formulating an intervention strategy with an emphasis on long-term treatment and a multidisciplinary approach, if indicated;
  - b. list the modalities of treatment for obesity including increased energy expenditure through exercise, decreased energy intake through healthy diets and behaviour modification;
  - c. discussing indications, risks and benefits of anti-obesity drugs and bariatric surgery;
  - d. demonstrating sensitivity to social and psychosocial consequences of obesity;
  - e. identifying opportunities to address socio-economic factors leading to obesity.