

# Glucose abnormalities

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## Rationale

Maintenance of the blood sugar within normal limits is essential for health. In the short-term, hypoglycemia is much more dangerous than hyperglycemia. Fortunately, both are uncommon clinical problems outside of diabetes mellitus.

## Causal Conditions

(list not exhaustive)

- Hypoglycemia
  - a. Postprandial
  - b. Fasting
    - Secondary to overutilization of glucose (e.g., sulfonylureas)
    - Secondary to impaired glucose production (e.g., adrenal insufficiency)
- Hyperglycemia
  - a. Diabetes mellitus
  - b. Endocrine
  - c. Drugs

## Key Objectives

Given a patient with a glucose abnormality, the candidate will diagnose the cause, severity and complications, and will initiate an appropriate management plan. Particular attention should be paid to management of emergent situations, to prevention of progression of pre-diabetes, and to prevention of complications.

## Enabling Objectives

Given a patient with a glucose abnormality, the candidate will

- list and interpret critical clinical findings, including
  - a. results of an appropriate history and physical examination aimed at determining cause and complications;
  - b. differentiation of true hypoglycemia from pseudohypoglycemia;
- list and interpret critical investigations, including
  - a. laboratory and radiological examinations (e.g., glucose tolerance test);
- construct an effective management plan for hyper- or hypoglycemia, including
  - a. counselling and educating the patient on preventive measures;
  - b. providing emergent treatment;
  - c. determining whether the patient requires specialized care;
  - d. referring the patient to appropriate support services, including lifestyle and psychosocial support.