

# Pre-operative medical evaluation

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## Rationale

Evaluation of patients prior to surgery is an important element of comprehensive medical care. The objectives of such an evaluation include the detection of an unidentified disease that may increase the risk of surgery and how to minimize such risk.

## Causal Conditions

(list not exhaustive)

- Optimal care of chronic diseases (e.g., coronary artery disease, diabetes mellitus)
- Identification of perioperative risk
  - a. Cardiopulmonary
    - Myocardial (e.g., ischemia, heart failure, arrhythmia)
    - Pulmonary (e.g., chronic obstructive pulmonary disease, infection)
  - b. Anaesthetic
    - Systemic (e.g., malignant hyperthermia, sleep apnea)
    - Intubation/airway (e.g., C-spine stability)
  - c. Thromboembolic (prior deep vein thrombosis, thrombophilia)
  - d. Medication-related (e.g., prednisone use, immunosuppressants)

## Key Objectives

Given a patient who requires surgery, the candidate will assess the perioperative issues based on the history and physical examination. In particular, the candidate will recommend strategies to minimize perioperative morbidity and mortality.

## Enabling Objectives

Given a patient who requires surgery, the candidate will

- list and interpret key clinical findings, including
  - a. determine current functional capacity of the patient and prior anesthetic history;
  - b. perform a history and physical examination to allow classification of perioperative risk and to optimize the patient's care (e.g., full medication list, cardiovascular examination);
- list and interpret appropriate clinical investigations, including
  - a. required investigations based upon risks identified from the history and physical examination (e.g., C-spine X-ray in rheumatoid arthritis, hemoglobin A1c [HbA1c], diabetes);
  - b. investigations for further risk stratification (cardiac stress testing, sleep study), if necessary;
- construct an effective management plan, including
  - a. optimization of the care of pre-existing medical conditions (e.g., diabetes);
  - b. communicating the perioperative risks to the patient and other health professionals;
  - c. communicating to the patient and other health professionals required medication changes around the time of surgery (e.g., stopping anticoagulants, deep vein thrombosis prophylaxis).