

# Seizures / epilepsy

(January 2017)

#### Rationale

Seizures are common and present in a variety of settings. They have many underlying causes and can be both disabling and life-threatening.

#### **Causal Conditions**

(list not exhaustive)

- Primary neurological disorders (e.g., idiopathic epilepsy, head trauma, encephalitis)
- Systemic disorders (e.g., hypoglycemia, electrolyte disorders)
- Other (e.g., febrile seizures, withdrawal)

### **Key Objectives**

Given a patient presenting with (a) seizure(s), the candidate will diagnose the cause, severity, and complications, and will initiate appropriate management. The candidate will differentiate a seizure from other transient but non-seizure conditions (e.g., syncope, conversion disorder). As well, the candidate will consider the presence of seizures in patients presenting with episodic neurological symptoms (e.g., inattention, psychosis). The candidate will outline a plan for the emergent treatment of a patient presenting with a seizure.

## **Enabling Objectives**

Given a patient presenting with (a) seizure(s), the candidate will

- list and interpret critical clinical symptoms and findings, including those uncovered during an appropriate history and physical examination conducted in order to
  - a. differentiate between a true seizure and non-seizure conditions;
  - b. categorize the type(s) of seizure(s);

- c. determine if seizures are secondary to co-existing medical conditions;
- d. identify pre-morbid conditions, triggers, and circumstances leading to the seizure (e.g., medication non-adherence);
- e. monitor for complications resulting from seizure prophylaxis medications (e.g., weight gain);
- list and interpret critical investigations, including those conducted in order to
  - a. exclude underlying medical conditions (e.g., serum glucose);
  - b. investigate for possible intracranial pathology (e.g., computed tomography scan, magnetic resonance imaging);
  - c. investigate seizure type (e.g., electroencephalography);
  - d. monitor for complications related to seizure prophylaxis medications (e.g., lipid profile);
- construct an effective initial management plan, including
  - a. providing emergent management of an ongoing seizure;
  - b. ensuring appropriate management if the patient presents with a history of seizures, including counselling (e.g., personal safety, psychosocial impact), pharmacotherapy and appropriate follow-up;
  - c. referring the patient for specialized care, if necessary;
  - d. notifying the patient and/or the appropriate authorities in case of inability to drive.