MEDICAL COUNCIL OF CANADA | LE CONSEIL MÉDICAL DU CANADA

Fever in the immune compromised host / recurrent fever

(February 2017)

Rationale

Patients with immunodeficiencies are at high risk for infections. The infective organism and site depend on the type and severity of immunosuppression. Many of these infections are life-threatening.

Causal Conditions of Impaired Immune System

(list not exhaustive)

- Host defense defects
    a. Cellular (e.g., human immunodeficiency virus (HIV), steroids)
    b. Humoral (e.g., congenital)
    c. Neutropenia (e.g., medication induced)
- Anatomic barrier defects (e.g., surgery, burns)
- Others (e.g., splenectomy, diabetes)

Key Objectives

Given a patient with fever and immunodeficiency, the candidate will diagnose the cause, severity, and complications, and will initiate appropriate management. In particular, the candidate will determine whether the patient with fever is immunocompromised and the likely nature of the immune defect, perform appropriate investigations to diagnose the source of infection, and will initiate appropriate management based on the type and severity of the immunosuppression.

Enabling Objectives

Given a patient with fever and immunodeficiency, the candidate will

- list and interpret critical clinical findings, including

    a. conduct a focused history and physical examination to determine the site and type of infection;
    b. determine the chief underlying immunologic defect and class of organisms likely to be involved;

- list and interpret critical investigations, including
    a. appropriate tests and investigations relevant to the suspected underlying immunologic defect (e.g., complete blood count, bronchoscopy);
- construct an effective initial management plan, including
    a. outline strategies for prevention of infection (e.g., prophylactic immunization);
    b. outline the initial and urgent management for fever;
    c. determine if the patient requires specialized care.