

# Dyspnea

## (March 2023)

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### Rationale

Dyspnea is a subjective sensation of shortness of breath or difficulty breathing. It is a common and distressful symptom. Acutely, dyspnea may indicate serious life-threatening illness, and it is an important cause of disability when present chronically.

### Causal Conditions

(list not exhaustive)

- Cardiac causes
  - a. Myocardial dysfunction (e.g., ischemic cardiomyopathy, heart failure)
  - b. Valvular heart disease
  - c. Pericardial disease (e.g., tamponade, pericarditis)
  - d. Arrhythmia
- Pulmonary causes
  - a. Airway (e.g., asthma, chronic obstructive pulmonary disease)
  - b. Parenchymal/interstitial (e.g., pneumonia, atelectasis, pneumonitis, acute respiratory distress syndrome)
  - c. Pulmonary vascular (e.g., embolism)
- Pleural disorders (e.g., pleural effusion, pneumothorax)
- Other causes (e.g., acidosis, anxiety, anemia, shock, deconditioning, carbon monoxide poisoning, neuromuscular disorder)

### Key Objectives

Given a patient with dyspnea, the candidate will diagnose the cause, severity, and complications, and will initiate an appropriate management plan. It is essential to identify patients with life-threatening causes of dyspnea.

## **Enabling Objectives**

Given a patient with acute dyspnea, the candidate will

- list and interpret critical clinical findings, including those derived from
  - a. a relevant history and physical examination, including current airway, breathing, and circulation status;
  - b. the determination as to whether the dyspnea is due to cardiac, pulmonary, or other causes; and
  - c. a history of occupational and environmental exposures;
- list and interpret critical investigations (e.g., electrocardiography, arterial blood gases, chest radiography); and
- construct an effective management plan, including
  - a. initiating immediate and emergent management if the patient presents with life-threatening dyspnea;
  - b. referring the patient for specialized care if necessary;
  - c. planning long-term management in case of chronic dyspnea, including secondary prevention strategies; and
  - d. anticipating medium- and long-term complications (e.g., psychosocial effects, safety) in case of chronic dyspnea.