



# Pediatric respiratory distress

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## Rationale

After fever, respiratory distress is one of the most common pediatric emergency complaints, the causes of which can be life-threatening.

## Causal Conditions

(list not exhaustive)

- Upper airway problems
  - a. Croup
  - b. Foreign body aspiration
  - c. Laryngeal disorders
  - d. Epiglottitis
  - e. Retropharyngeal abscess
  - f. Choanal atresia
- Lower airway, pulmonary disorders
  - a. Tracheitis, bronchiolitis
  - b. Pneumonia, atelectasis
  - c. Asthma, bronchospasm
  - d. Respiratory distress syndrome of the neonate
  - e. Tracheo-esophageal fistula
  - f. Pulmonary embolus
- Pleural disorders

- a. Pleural effusion, empyema
- b. Pneumothorax
- Neurologic disorders (e.g., drugs)
- Other (e.g., extrapulmonary restriction)
- Cardiac disorders
  - a. Congestive heart failure (left-to-right shunt, left ventricular failure)
  - b. Cardiac tamponade

## Key Objectives

Given a patient with pediatric dyspnea or respiratory distress, the candidate will diagnose the cause, severity, and complications, and will initiate an appropriate management plan. In particular, for correct assessment, it is important to consider the respiratory rate in the context of age of the child.

## Enabling Objectives

Given a patient with pediatric respiratory distress, the candidate will

- list and interpret critical clinical findings, including
  - a. differentiate a child who appears well from a child in distress or in critical condition;
  - b. for the child in distress or critical condition, first evaluate the airway, breathing, and circulation status, then perform a thorough history and physical examination;
  - c. differentiate cardiac from pulmonary, neuromuscular, or other causes;
- list and interpret critical investigations, including
  - a. selection and interpretation of appropriate cardiac and pulmonary investigations (e.g., arterial blood gases, complete blood count (CBC));
- construct an effective plan of management, including
  - a. manage patients with life-threatening respiratory distress, including selection of patients requiring hospitalization and specialized care;
  - b. plan long-term management of patients with chronic disease, including secondary prevention strategies.