Assessment of the Respiratory System
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History

• Biographical data
• Demographic data
• Current Health
• Chief Complaint
  – Dyspnea
  – Cough
  – Sputum Production
  – Hemothysis
  – Wheezing
  – Stridor
  – Chest Pain

Symptom Analysis using OLDCART(S)

• O onset
• L location
• D duration
• C characteristics
• A aggravating factors
• R relieving factors
• T timing
• S setting
Past Health History

- Childhood and Infectious Disease
- Immunizations
- Major Illnesses and Hospitalizations
  - Ventilator use
  - Respiratory treatments
  - Oxygen therapy
  - Surgeries
- Medications
- Allergies
- Family Health History

Psychosocial History

- Occupation
- Geographic Location
- Environment
- Habits
- Smoking (pack years)
- Alcohol
- Drug Use
- Exercise
- Nutrition

Physical Exam

- Inspection
- Palpation
- Percussion
- Auscultation
Inspection

- Use of accessory muscles
- I/E ratio
- Position of comfort
- Gasping
- Shortness of breath
- Dyspnea
- Head and Neck
- Fingers and Toes
- Posture

CHEST

- Barrel Chest
- Pigeon Chest
- Funnel Chest
- Thoracic Kyphoscoliosis

CHEST Movement

- Lymph nodes
- Trachea
- Bronchial tubes
- Pleura
- Lung tissue
- Diaphragm
- Mediastinum
Palpation

- Trachea
- Chest Wall
- Thoracic Excursion
- Tactile Fremitus (Symmetry)
- Diaphragmatic excursion

Percussion

- Resonant
- Hyperresonant
- Dull
- Flat
- Tympanic
Auscultation

• Table 61-7 p. 1754 Sequence
• Open mouth breathing while auscultating
• Bare chest (Do not listen through clothes or gowns.)
• Listen through one complete respiratory cycle, before moving stethoscope to another area.

Normal Breath Sounds

• Vesicular
• Bronchial
• Bronchovesicular
• Absent or diminished
Adventitious Breath Sounds

• Table 61-3 p. 1757
• Crackles
• Rhonchi
• Wheezes
• Pleural Friction Rub

Diagnostic Tests to Evaluate Respiratory Function

• Pulmonary Function Tests (PFT's)
  – Forced Expiratory Spirometry
  – Lung Volume (Forced Vital Capacity)
  – Diffusion Capacity
• Pulse Oximetry
• Capnography (EtCO2)
• Arterial Blood Gas Analysis
• Ventilation/Perfusion Studies

Pulse Oximetry

• Non invasive way of measuring arterial oxygen saturation
• Saturation represents the percentage of Hemoglobin binding sites that are occupied by oxygen. It does not represent the amount of free oxygen in the blood plasma.
SpO2 cont.

- Uses infrared light to measure the amount of oxygenated hemoglobin in the arterial blood.
- Sites used – ear, finger, toe or bridge of the nose
- Monitor reading should correlate with patient’s palpated pulse

Pulse oximetry probes
Tests to Evaluate Anatomic Structures

- Radiography
  - CXR
- Fluroscopy
- Computed Tomography (CT Scan)
- Magnetic Resonance Imaging
- Ultrasonography
- Gallium Scans
- Bronchoscopy
- Laryngoscopy
- Pulmonary Angiogram

Additional Diagnostic Testing Nursing Interventions

- Sputum Collection
- Thoracentesis
- Biopsy
- Pleural Biopsy
- Lung Biopsy