

Protective Defenses

- Filtration of air
- Warming & Humidification
- Epiglottis closure over trachea
- Cough reflex
- Mucociliary escalator mechanism (helps to mobilize secretions)
- Secretion of immunoglobulin A
- Alveolar macrophages

Fx

- Ventilation
- Diffusion & Gas Exchange
- O₂ Transport & Perfusion

Assessment

- Hx (smoking, allergies, work hx, family hx, other med problems)
- S/S (clubbing, SOB, wheezing, DOE, peripheral cyanosis, blood in sputum - PE or TB)
- ADL's (What activity is tolerable? Does pt sleep upright? Ambulate how many ft?)
- Physical Assessment
 - Auscultation (lung sounds in 1st-5th intercostals spaces - wheezes, rales, rhonci, crackles)
 - Percussion (s/b resonance sound - dull might be fluid build-up)
 - Dyspnea/Orthopnea
 - Cough
 - Cyanosis (circumoral/central - in mucous membranes; peripheral)
 - Chest configuration (barrel chest, pigeon chest, kyphosis)

OXYGENATION

Pharmacology

- Beta₂ Adrenergic Agonists (Albuterol, Alupent)
- Anti-inflammatory - ↓ edema (Flovent, Prednisone)
- Anti-cholinergic - cause drying (Atrovent)
- Leukotriene Modifiers (Accolate, Singulair)
- Methylxanthine Derivatives (Aminophyllin - IV, Theophyllin - PO)
- Anti-tussives - suppress cough (dextromethorphan)
- Expectorants (guaifenesin)
- Antibiotics

Labs/Diagnostics

- Cultures (sputum, urine)
- Blood (CBC, Chem 7)
- PFT's (Peak Flow Rate, FEV₁, FVC, Tidal Vol)
- ABG's (respiratory acidosis or alkalosis)
- O₂ sat
- Xray, MRI, CT Scan
- Fluoroscopy
- Angiogram
- Nuclear Scans (PET)

Risk Factors

- Smoking
- Family hx
- Environmental/Exposure