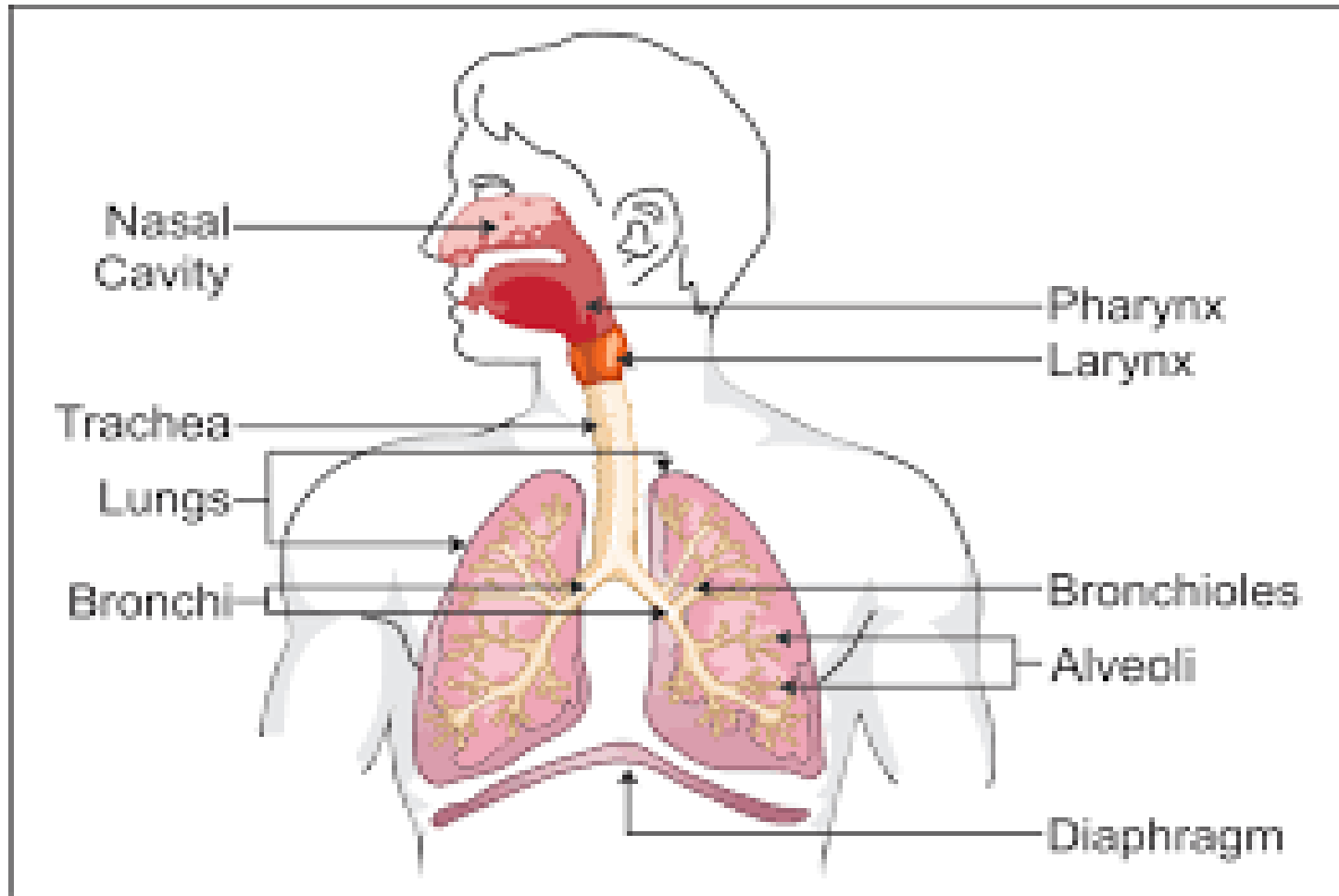




Pharmacology

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Respiratory system



Therapeutic gases



Oxygen for pulmonary diseases, heart diseases (congestive heart failure) & general anaesthesia

Route of administration

- Through tube placed near face
- Face mask
- Nasal catheter
- Oxygen tent and room
- Endotracheal tube

Carbon dioxide (CO₂) for respiratory insufficiency, hiccough & CO toxicity

Route of administration

- Face mask
- Mouth to mouth breathing
- Carbonated beverage

Expectorant & Antitussive



1. Expectorants

Drugs used in productive cough to facilitate removal of bronchial secretion by coughing

Examples

- Potassium iodide
- Ammonium chloride
- Syrup of ipecac

2. Antitussive

Drugs used to relieve dry cough

- **Peripheral antitussive**
- **Central antitussive**

Bronchial asthma



Bronchial asthma:

Recurrent attack of shortness of breath, chest tightness and wheezes

Drugs used in treatment of bronchial asthma

1. Bronchodilator

- B2 adrenergic agonist
- Methylxanthines

1. Anticholinergic drugs

2. Anti-inflammatory drugs

- Corticosteroid
- Cromolyn sodium

Status asthmaticus



- **Patient is hospitalized and should receive oxygen**
- **Inhaled and parenteral sympathimetics**
- **I.V corticosteroid**
- **Antibiotics for airway infection**
- **I.V aminophylline**

Chemotherapy



Sulfonamide: Competitive antagonist of PAPA preventing formation of folic acid

Uses

- Meningitis
- Pneumonia
- Urinary infection
- Eye infection

Side effects

- Agranulocytosis
- Hypersensitivity reaction
- Neusea and vomiting
- Cystalluria
- Kernicterus

Penicillin



Penicillin: bactericidal, inhibit bacterial growth by interfering with the bacterial cell wall synthesis

Types of penicillin

- Penicillin G
- Benzathine penicillin G
- Procaine penicillin
- Beta lactamase resistant penicillin
- Ampicillin and amoxicillin

Therapeutic uses

- Pneumonia and meningitis
- Pharyngitis and endocarditis
- Diphtheria

Side effects

- Hypersensitivity reaction

Cephalosporin



Cephalosporin: Mechanism is similar to penicillin

Types of cephalosporin

- First generation (cefazolin)
- Second generation (cefaclor)
- Third generation (cefotaxime)

Therapeutic uses

- Meningitis
- Urinary infection
- Respiratory infection

