



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT OF CARDIOPULMONARY PERFUSION CARE
TECHNOLOGY

COURSE NAME: PATHOLOGY II

II YEAR

UNIT II : PATHOLOGY OF LUNG

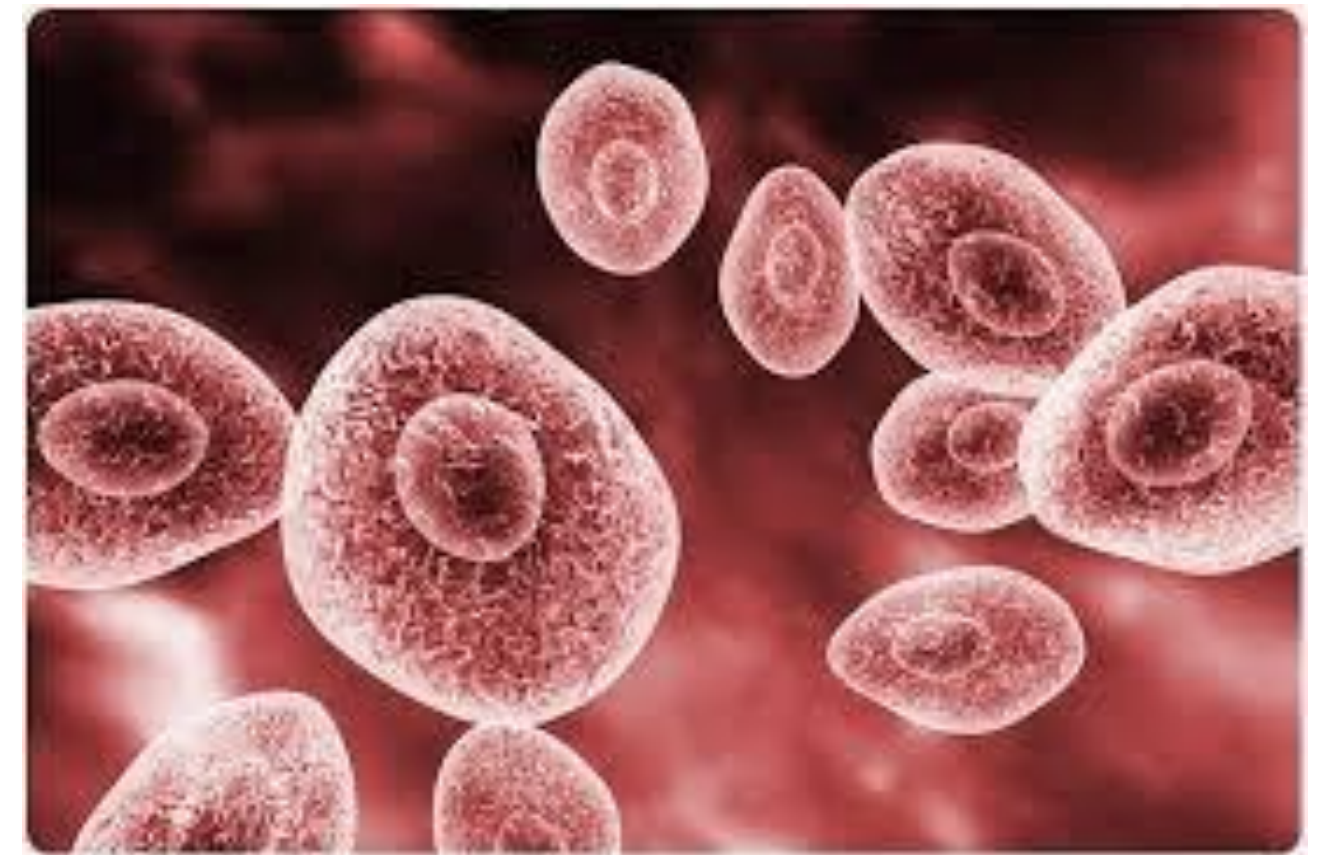
TOPIC : PNEUMONIA – OTHER TYPES



Pneumocystis carinii Pneumonia



- *Pneumocystis carinii* is a **protozoon**
- Occurs by inhalation of the organisms as an opportunistic infection in neonates and immunosuppressed people.
- 100% cases of HIV/AIDS develop opportunistic infection
- **Clinical features:** rapid onset of dyspnoea, tachycardia, cyanosis and non-productive cough.





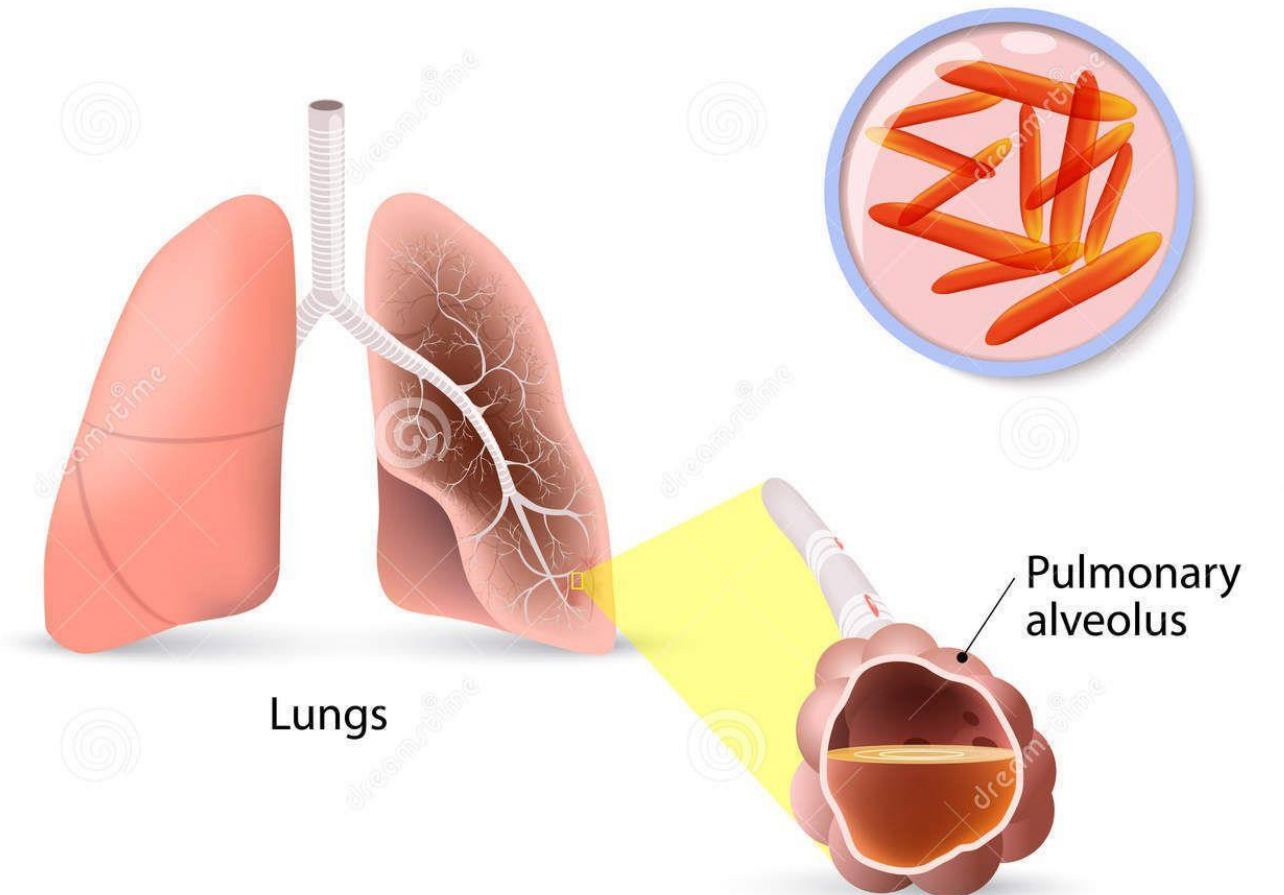
Legionella Pneumonia



- *Legionella* pneumonia is an epidemic illness caused by **gram-negative bacilli**
- Impaired host defences in the form of immunodeficiency, corticosteroid therapy, old age and cigarette smoking play important roles.
- **Clinical Features:** High fever, chills, cough and tachypnoea

Legionnaires' disease

Over 90% of cases of legionellosis are caused by *Legionella pneumophila*



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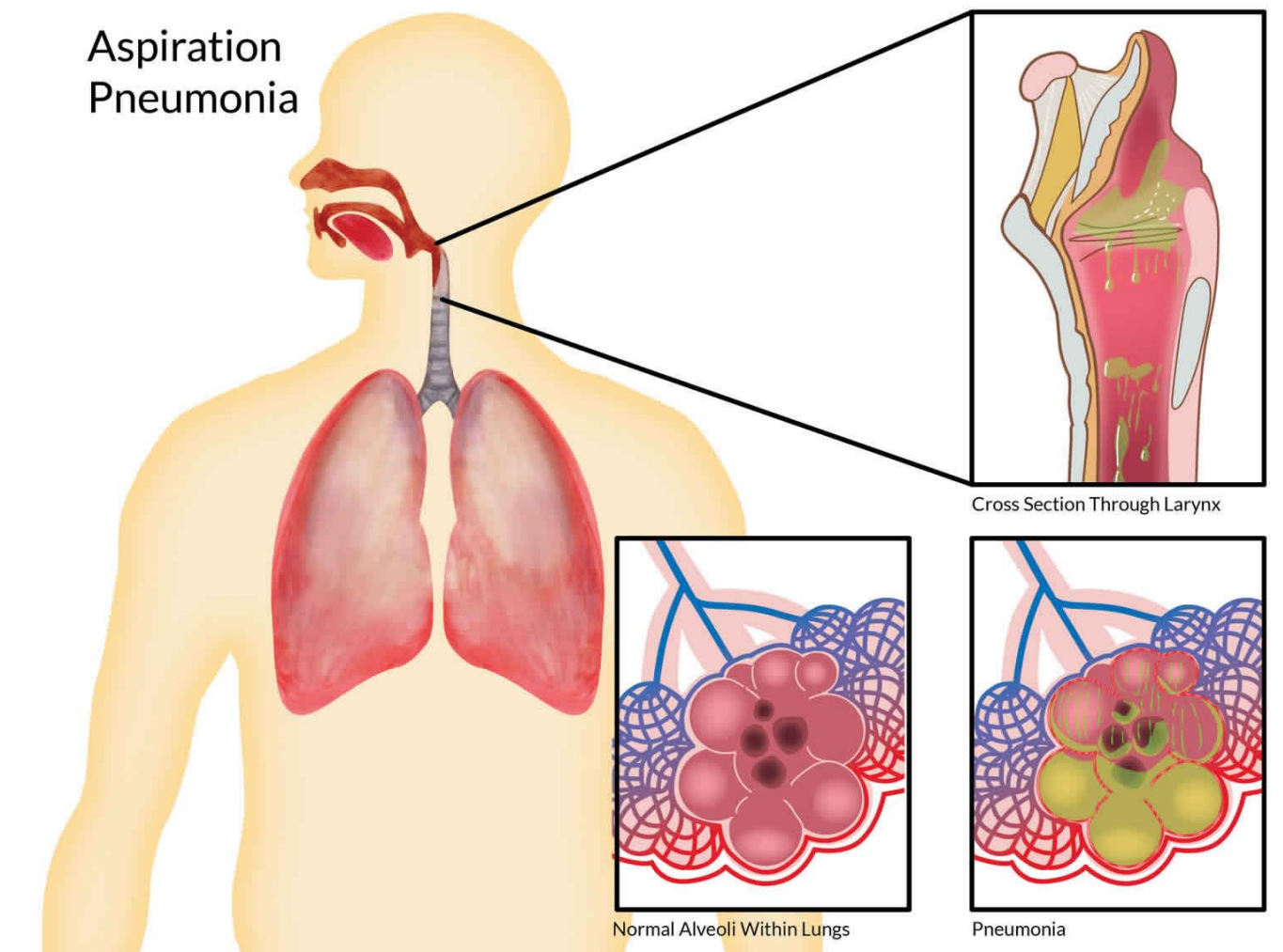
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Aspiration Pneumonia

- Aspiration or inhalation pneumonia results from inhalation of different agents into the lungs.
- These substances include food, gastric contents, foreign body and infected material from oral cavity.

Morphologic Changes:

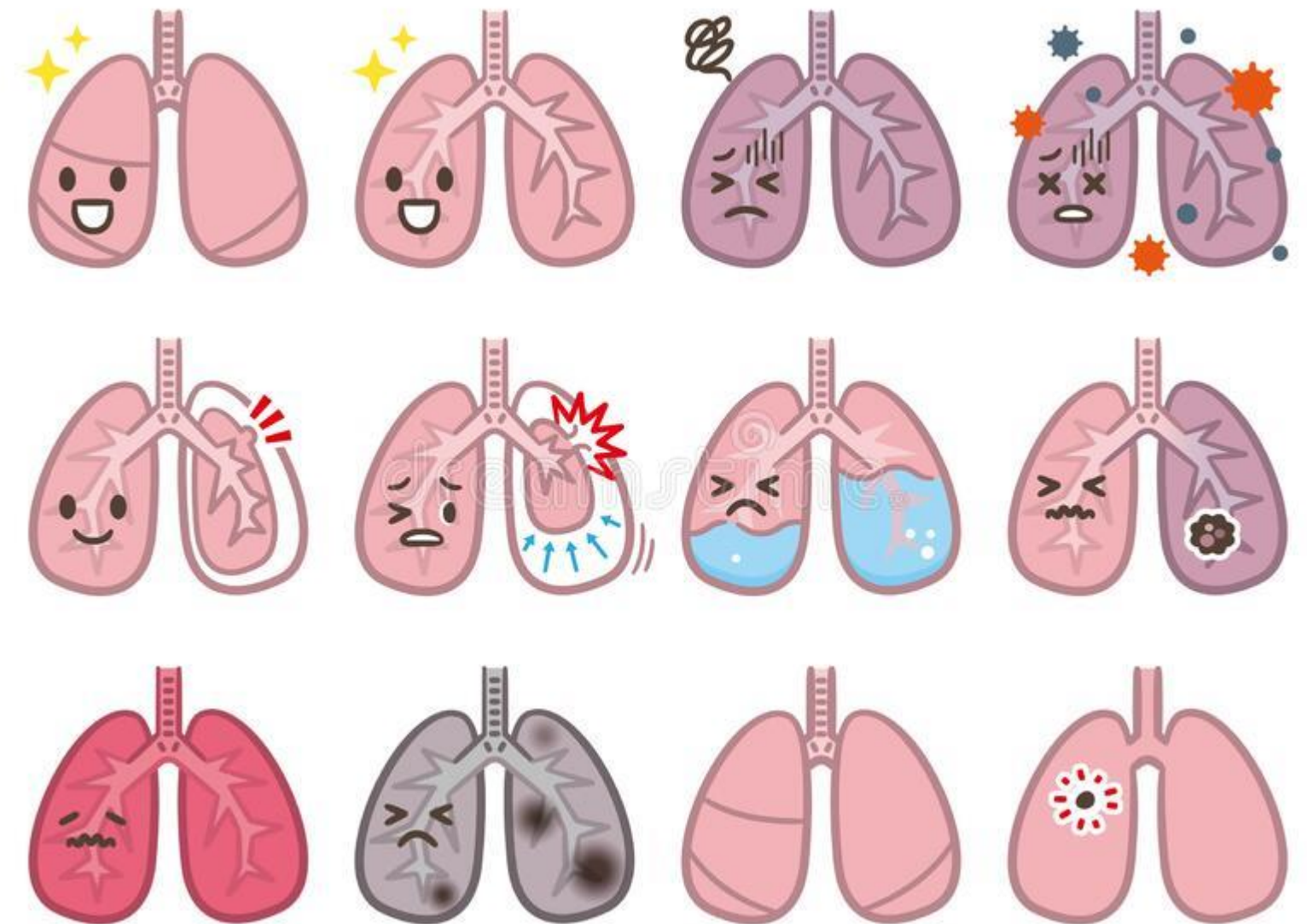
- Haemorrhagic pulmonary oedema
- Multiple necrosis and suppuration
- bloody sputum
- Cardiac failure



Aspiration Pneumonia

Factors predispose to inhalation pneumonia which include:

- Unconsciousness
- drunkenness,
- neurological disorders affecting swallowing,
- necrotic oropharyngeal tumours
- in premature infants and congenital tracheo-oesophageal fistula.





Hypostatic Pneumonia



- Hypostatic pneumonia is the term used for collection of oedema fluid and secretions in the dependent parts of the lungs in severely debilitated, bed-ridden patients.
- The accumulated fluid in the basal zone and posterior part of lungs.
- Hypostatic pneumonia is a common terminal event in the old, feeble, comatose patients.





Lipid Pneumonia



Exogenous lipid pneumonia - Aspiration of a variety of oily materials.

These are:

- inhalation of oily nasal drops
- regurgitation of oily medicines from stomach (e.g. liquid paraffin)
- administration of oily vitamin preparation

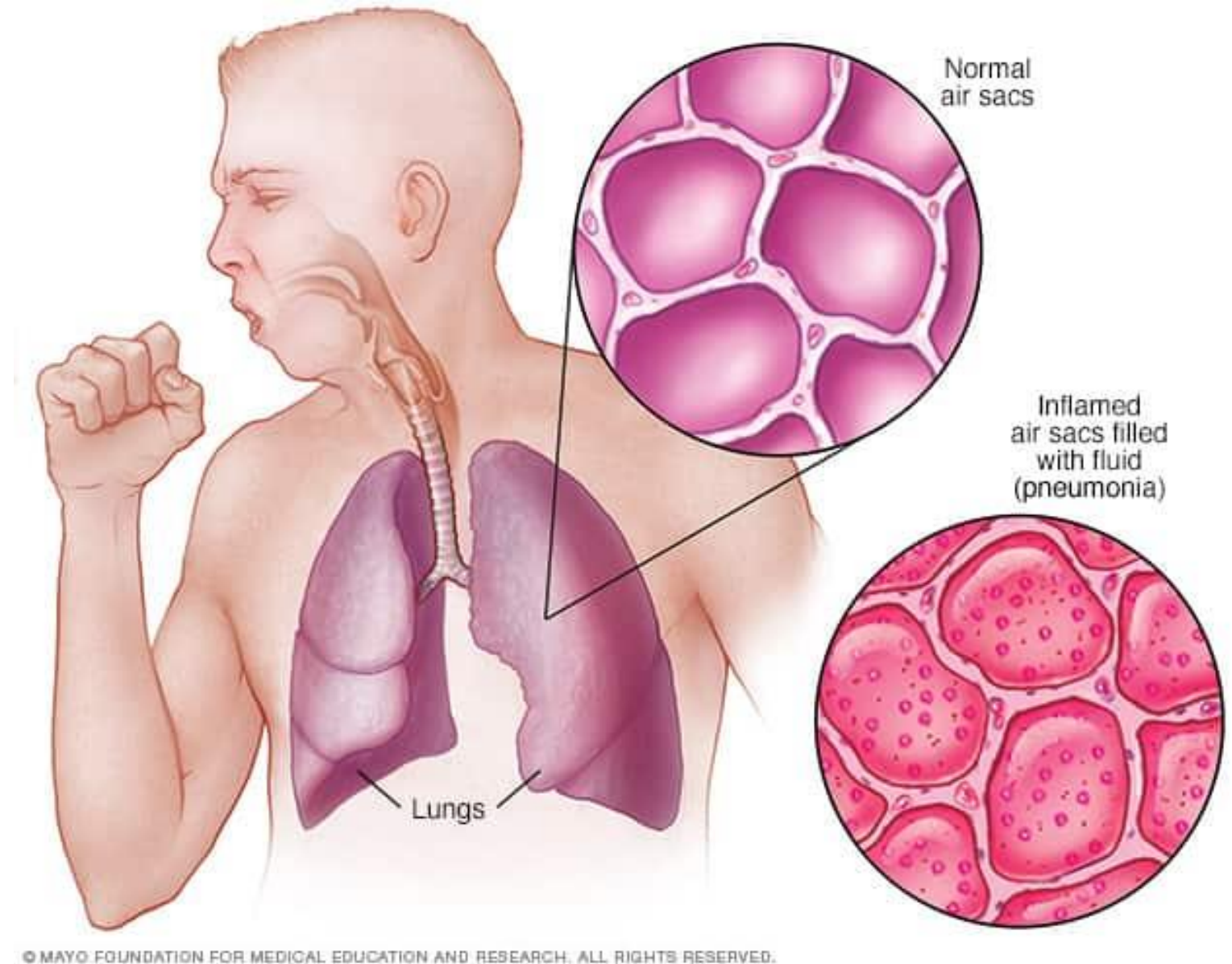
Endogenous lipid pneumonia - Endogenous origin of lipids causing pneumonic consolidation

- tissue breakdown following obstruction to airways e.g. obstruction by bronchogenic cancer, tuberculosis and bronchiectasis.



Clinical Classification of Pneumonia

- Community Acquired Pneumonia
- Pneumonia in Elderly
- Nosocomial- HAP,VAP,HCAP
- Pneumonia in Immuno-compromised host





Community Acquired Pneumonia



- It refers to pneumonia occurs outside the hospitals or extended care facility.
- It is the most common form of pneumonia
- It causes acute infection of the pulmonary parenchyma



Hospital Acquired Pneumonia



HAP is defined as pneumonia that occurs 48 hours or more after admission, which was not incubating at the time of admission



ADAM.



Ventilator Associated Pneumonia



VAP refers to pneumonia that arises more than 48–72 hours after endotracheal intubation





Healthcare Associated Pneumonia



HCAP includes any patient

- Who was hospitalized in an acute care hospital for 2 or more days within 90 days of the infection
- Resided in a nursing home or long-term care facility
- Received recent I.V antibiotic therapy, chemotherapy, or wound care within the past 30 days of the current infection
- Attended a hospital or haemodialysis clinic





Elderly Pneumonia



- Infection has a more gradual onset, with less fever and cough
- often with a decline in mental status or confusion and generalized weakness
- often with less readily elicited signs of consolidation





Diagnosis



- SPUTUM - Gram Staining
- X - Ray
- Blood culture
- ABG
- CT Thorax
- Bronchoscopy
- Biopsy
- Pleural Aspiration





Treatment



- Antibiotics
- Oxygen therapy
- Antiviral therapy – viral pneumonia – zanamivir etc.,
- Bacterial Pneumonia – azithromycin, erythromycin





Assessment



- What are the types of pneumonia?
- What antimicrobial therapy given for pneumonia?
- How will you diagnose pneumonia?



Thank You



References:

Text book of Pathology – Harsh Mohan

Concise text book of Pathology – Ganga S Pilli