

وَقُلْ رَبِّ زِدْنِي عِلْمًا



# RESPIRATORY SYSTEM

## HA4AT BATCH



SUBJECT : \_\_\_\_\_

LEC NO. : Lec 6+7+8 . summary

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# Pneumonia

Community Acquired Acute (typical)	Community Acquired Atypical	Nosocomial (Hospital acquired)	Aspiration	Lung abscess	Chronic	In the immunocompromised
most common cause: bacteria (Streptococcus pneumoniae) morphology: wedge-shaped consolidation in bronchi, bronchioles and alveolar spaces Lobular pneumonia → large portion of lobe, entire lobe infected Congestion into alveolar exudate Red hepatization Grey hepatization Resolution	cough with moderate amount sputum absence of physical findings of consolidation lack of alveolar exudate Moderate elevation of WBC count most common cause → Mycoplasma pneumoniae morphology: patchy or white lobe inflammation in the wall of alveoli contain mononuclear cell pleiomorphic (lymphocyte, histiocyte)	at least 48 h after admission most common cause → Staph. Aureus gram (-) enterobacteria, pseudomonas gram (+)	(unconscious patient) Necrotizing pneumonia Abscess formation in lung foreign body giant cell granuloma	Cavities (تجاويف) Necrosis and inflammation As a complication of bacterial pneumonia & mycotic infections Bronchiectasis Following bronchial obstruction as in tumors, head carcinoma Abscess (التسبب الي يتاوع الي Abscess وولندا) حسب المسبب suppurative neutrophils انكز امسني ميترجا	Granulomatous inflammation localized immunocompromised → widespread TB (زيتريا) ال السبل Mycobacterium tuberculosis (acid fast) cell-mediated immunity Granuloma (تجمع من ال Immunity) Granuloma tissue is part of the host immune response Pathogenesis: Macrophage cell mediated immunity Preventing the fusion of the lysosome with the phagocytic vacuole Asymptomatic or mild disease CD4+ T cell (TH1) → secreting IFN-γ which activates macrophage Granuloma bacilli + Nitric oxide Antimicrobial peptide Ziehl Neelsen stain (acid fast stain) <b>Type TB</b> Primary Secondary Sensitized (مستجاب) exogenous upper part of upper lobe upper part of lower lobe Pleura Ghon focus Rasmussen (necrotic) granuloma Histoplasmosis Thick wall (Condensers) Round yeast with budding	1) cytomegalovirus infection clear halo & cytoplasmic inclusion 2) Pneumocystis pneumoniae Fungi & AIDS (HIV) Foamy pink (cotton candy) round to cup shape 3) Candidiasis Yeast & pseudo & true hyphae PAS stain 4)

## Lung tumors

Adenocarcinoma	Squamous cell carcinoma	Large cell carcinoma	Small cell carcinoma (Neuroendocrine carcinoma)
* Women, non smoker Peripheral nodules or masses metastasize The most common in women, non smoker * growth patterns → Lepidic, Acinar, Papillary, Micropapillary, solid * TTF-1+ → mucin stain → PAS, mucicarmine	Central masses (necrosis, cavitation) Smoking Disseminate later than do other histologic → keratin pearls, intercellular bridges, P40+, P63+	peripheral nodules or masses large nuclei, lacks architectural lacks immunohistochemical features.	Central masses early involvement of lymph nodes salt and pepper appearance scanty cytoplasm Chromogranin + Synaptophysin + Crush artifact (fragmentation) اسود نوي من ال lung carcinoma