

## PULMONARY INFECTION

### Symptoms :

chills and fever, productive cough, blood tinged or rusty sputum, pleuritic pain, hypoxia with shortness of breath & cyanosis.

### (1) Bacterial pneumonias

#### (A) Lobar pneumonia

Caused by : Streptococcus pneumonia

→Intraalveolar exudate and may involve an entire lobe of the lung

#### (B) Bronchopneumonia

patchy distribution  
→one or more lobes, Inflammatory infiltrate extending from the bronchioles into the adjacent alveoli.

### (2) Interstitial (primary atypical) pneumonia

Diffuse; patchy inflammation localized to interstitial areas of alveolar walls.

### (3) Pneumocystis carinii pneumonia

Common in (AIDS) also caused by : pneumocystis carinii (Pneumocystis jiroveci) fungus.

**Diagnosis :** bronchialwashing specimens  
Bronchial washing specimens

### (4) Hospital-acquired gram(-) pneumonias

**Cause :** Klebsiella, Pseudomonas aeruginosa and Escherichia coli. By there Endotoxins

**Community acquired is gram (+)**

#### (a) Mycoplasma pneumonia(common)

In children and young adults and in epidemics.  
more insidious compared to bacterial pneumonia  
**No exudate**

**Diagnosis :**  
sputum cultures (weeks)  
complement fixing antibodies.  
Non specific agglutinins reactive to red cells (used for diagnosis)

#### (b) Viral pneumonias (common in children )

**Cause :** influenza viruses  
adenoviruses, rhinovirus and respiratory syncytial virus  
Childhood exanthems (viral eruptions) such as rubeola (measles) or varicella (chicken pox).  
Measles virus→giant cell pneumonia → tracheobronchitis

#### (c) Rickettsial pneumonias (Q fever)

**Cause :** Coxiella burnetii from Infected cattle or sheep unpasteurized milk from infected animals

#### (d) Ornithosis (psittacosis)

**Cause :** Chlamydia from excreta of infected birds