

## Objectives

1. ...
2. ...
3. ...
4. ...
5. ...
6. ...
7. ...
8. ...
9. ...
10. ...

Not given to us.  
May be it will be  
provided later :/



# Mind map

## (Community Acquired pneumonia)

- Pneumonia is classified into typical & Atypical. Also, it's classified anatomically.
- Those classifications have their organism, symptoms, treatment .. Extra.
- Types of pneumonia: Psittacosis, Q Fever & Legionella pneumophila.
- General Antibiotic treatment for Pneumonia.

# Pneumonia: Acute infection leads to inflammation of the parenchyma of the lung ( the alveoli )

## Classification

	Typical Gram ( + & - )	Atypical	Notes
<b>Organism</b>	<i>Streptococcus pneumoniae</i> , <i>Haemophilus Influenzae</i> & <i>Moraxella catarrhalis</i>	Legionnaires pneumonia, <i>Mycoplasma pneumoniae</i> , <i>Chlamydia</i> , fungi , viral & Parasitic	Typical: <b>most common S.Pneumonia &amp; in CAP</b> Atypical: <b>Most common Mycoplasma &amp; Chlamydia</b>
<b>Symptoms</b>	Fever, Cough & Dyspnea	Sore throat & Pharyngitis	Maybe I have S.Pneumonia, but I only have sore throat! Cause symptoms haven't began. IT will in around 1 week or more.
<b>Diagnosis</b>	Gram Stain & Culture Sample is ( Sputum )	Culture on <b>special media</b> & serology test Sample is ( Sputum )	Typical: Can be detected on gram stain Atypical: <b>Can NOT be detected on gram stain</b>
<b>Treatment</b>	Beta lactam ( Penicillin )	Macrolide, Tetracyclines & Quinolones	Atypical: <b>Do NOT respond to Beta lactam</b>
<b>Mode Of Transition</b>	1- Inhalation. 2- By our Normal respiratory flora. 3- Hematogenous spread as in Bacteremia. Bacteremia: Bacteria in the blood, it will spread and go for example to the Lung.		
<b>Risk Factors</b>	Pneumonia are high especially in old people & Immunodeficiency people.		
<b>Defense Mechanism in Respiratory Tract</b>	Cough reflex, Cilia motion & and we don't swallow our saliva in the lung.		
<b>Differentiating Test</b>	Optochin disk Test: to differentiate between <i>Streptococcus Pneumonia</i> from other alpha hemolytic Strep.		
<b>MIC</b>	MIC: Minimum inhibitory concentration: The amount of a dose to overcome bacteria. In Penicillin, We increase it so it overcome the bacteria's growth and resistance. Will not be asked, but in case 😊		
<b>HAP vs CAP</b>	To differentiate between <b>Hospital Acquired Pneumonia</b> and <b>Community Acquired Pneumonia</b> we say that CAP happens when the patient get the disease after leaving the hospital in 14 days.		

## Classification By anatomy: 1- Lobar: entire lobe. 2- Lobular: Bronchopneumonia. 3- Interstitial.

### 1- Lobar:

Symptoms: Sudden Acute onset Specially Atypical type, High fever, cough, shortness of breath ( Dyspnea ) & Chest Pain.

Diagnosis: By Sputum sample for gram stain.

# Types of Pneumonia

## 1- Psittacosis

		Notes
<b>Organism</b>	Chlamydophila	
<b>Mode Of Transition</b>	acquired by birds ( Mainly Parrot ), they carry Psittacosis as their normal flora and they disease the human.	<b>It would be very sever if it occur to a pregnant woman</b>
<b>Treatment</b>	<b>Quinolones</b> or Macrolides. Maybe we <b>Tetracyclines</b> but it is more aggressive	

## 2- Q fever

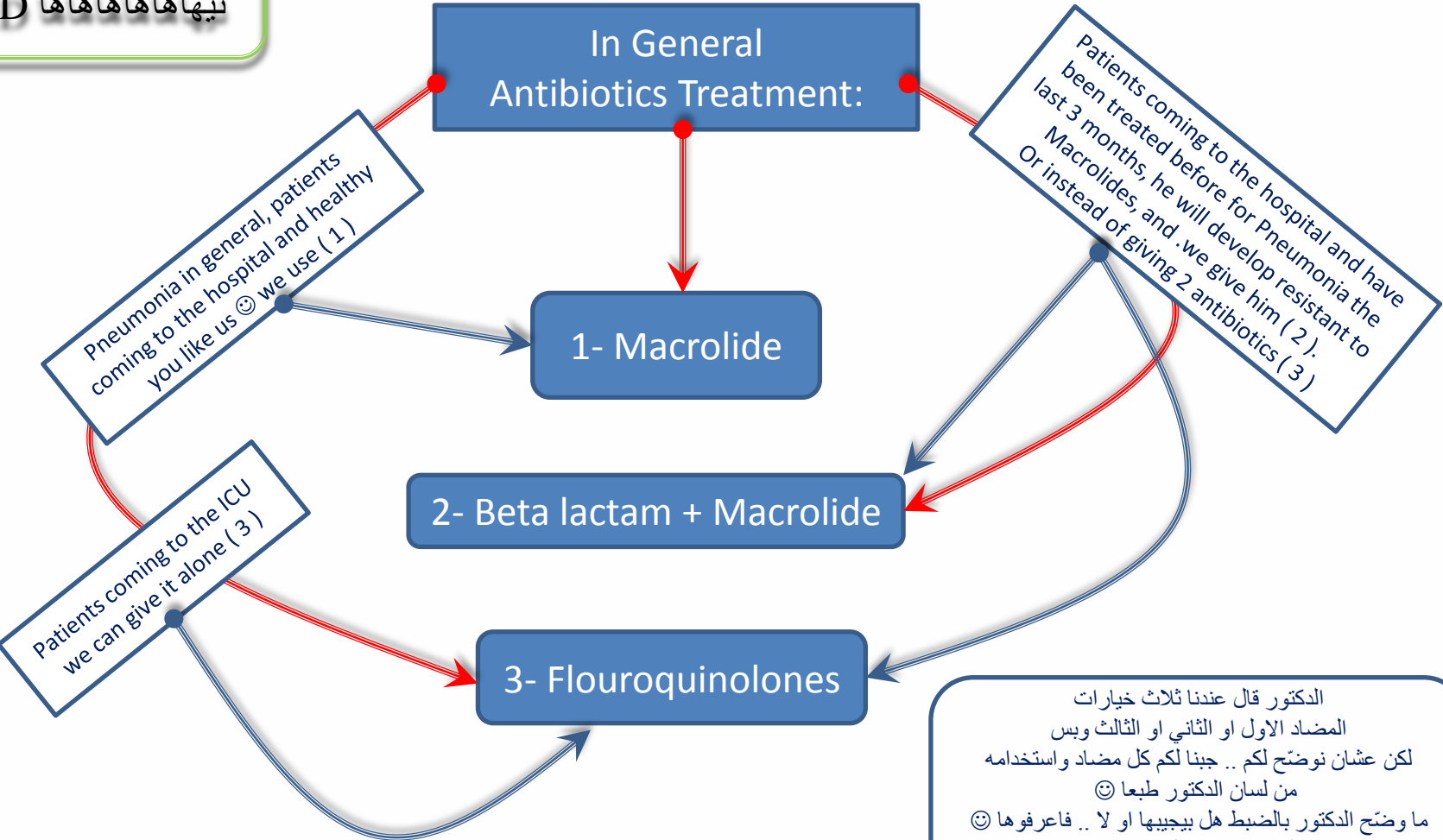
<b>Organism</b>	Coxiella burnetti	<b>Acquired from the sheep</b> Exposure to farm animals or parturient cats
<b>Treatment</b>	1st: Tetracycline, 2nd: Macrolide ( same as Atypical Pneumonia )	

## 3- Legionella pneumophila

<b>Name of disease</b>	Legionnaire's disease	
<b>Organism</b>	Legionella pneumophila	
<b>Culture Media</b>	This organism will only grow in a <b>special media called BYCE</b>	
<b>Syptoms</b>	<b>very high fever</b> , Liver enzyme elevated and <b>Hyponatraemia</b>	<b>The patient needs ICU admission</b>
<b>Source of this organism</b>	<b>Cooling systems</b> ( it lives their )	يعني تعيش في اجهزة التبريد مثل المكيفات xD
<b>Diagnosis</b>	By Urinary antigen, liver function test, Kidney function test	

أسهل سلايد  
نباهاهاهاهاها xD

In General Antibiotics Treatment:



الدكتور قال عندنا ثلاث خيارات المضاد الاول او الثاني او الثالث وبس لكن عشان نوضح لكم .. جينا لكم كل مضاد واستخدامه من لسان الدكتور طبعاً 😊 ما وضح الدكتور بالضبط هل يجيبها او لا .. فاعرفوها 😊  
 ١- اذا المريض كان قبل متعافي وشباب  
 ٢- قد جاء المرض قبل ٣ اشهر  
 ٣- اذا أدخل المريض للعناية المركزة

# Questions

I know you just wanna finish the Lecture and go to study another more SERIOUS topics like in Pathology or Physiology ;), guess what!  
You can leave 😊

For those who want to excel in this lecture, we got you a super nice enjoyable questions that you will not answer in other place than the exam room, will hopefully xD  
Let's do this ^^

In **RED** is important 😊

- Q1: What is the most common organism for community acquired pneumonia?
- Q2: Pneumonia are especially occur in ? 1- infant 2- old people 3- children 4-adults
- Q3: Which one of these drugs don't treat atypical pneumonia? 1- Macrolide 2- beta lactam
- Q4: What's the special media Legionella pneumophila deal with ?
- Q5: Pregnant women can have a very sever Pneumonia with ? 1- Q fever 2- Psittacosis
- Q6: We use special media for Atypical or Typical organisms ?
- Q7: We can't see Typical or Atypical organism in gram stain ?
- Q8: Why don't we develop Pneumonia ?
- Q9: Q Fever is acquired from birds or sheep ?
- Q10: Psittacosis is acquired from birds or sheep ?
- Q11: What's the disease that elevate liver enzymes ?
- Q12: What's the source of the Legionella pneumophila organism ?

You want answers? You can look for them in slide 3 & 4 & don't worry they are easy to find. Have fun ^^

For this lecture, we took what the doctor said and emphasized and implement it here.  
It doesn't have all the information in the lecture's slides. The doctor eliminated some info in some slides.  
So, everything here is **IMPORTANT** to know.

We hope that we made this lecture easy for you, and wish you best of luck.

# THANK YOU

Special thanks to Mosfer Al Dosari for sharing his notes with us 😊

If there was something wrong in this work, then please contact the team's leader:

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