

③ Atypical pneumonia causing organisms (GNB).

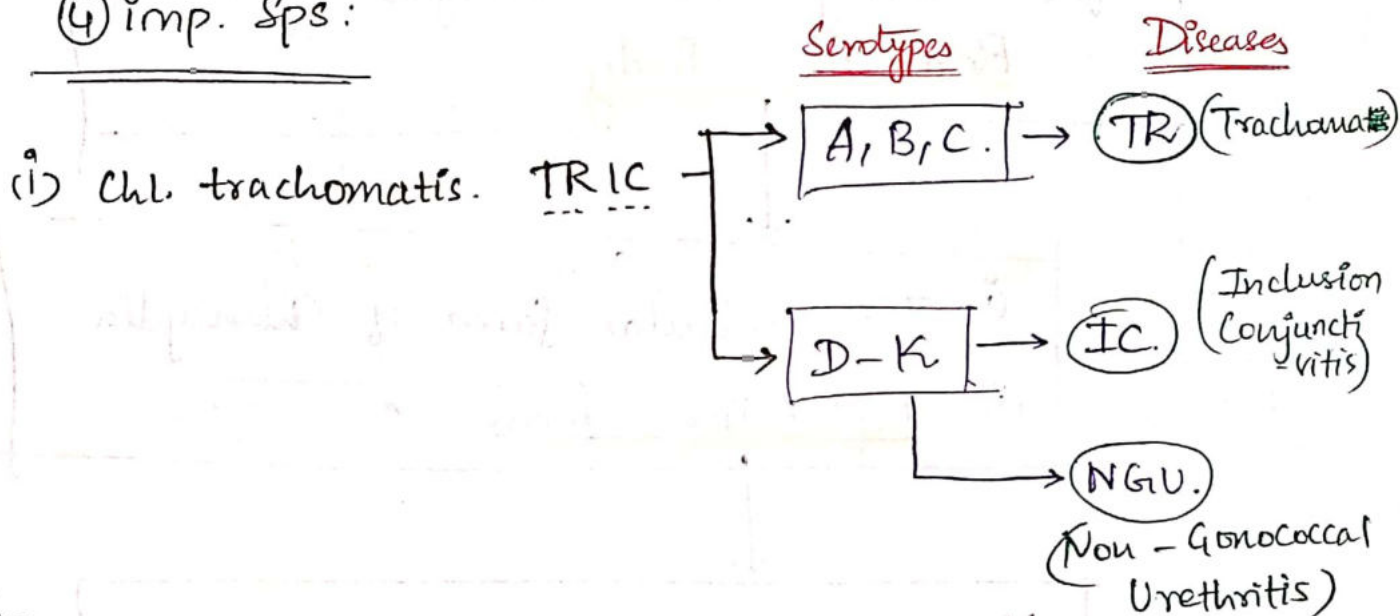
1) Chlamydia

I) Chlamydia
II) Mycoplasma
III) Legionella

- Intra-cellular organism
- Non-cultivable. → Tissue Culture

↓
McCoy & HeLa Cell lines.

④ imp. sps:



ii) Chl. Trachomatis LGV → Imp serotypes L₁, L₂, L₃ → Dis Lympho Granuloma Venerum (LGV).

iii) Chl. psittaci. → many serotypes → psittacosis (atypical pneumonia) (Zoonotic ⇒ parrot)

iv) Chl. pneumonia → only one serotype → "ATYPICAL PNEUMONIA"

Life cycle: of Chlamydia:

* 1st Chlamydia enters the cell bcoz its an Intracellular org. After entering

After entering the Chlamydia is called Reticular Body

- aka
- (i) Intracellular form of Chlamydia
 - (ii) Replicative form " "

∴ Replication req. energy, Active metabolism takes place in it

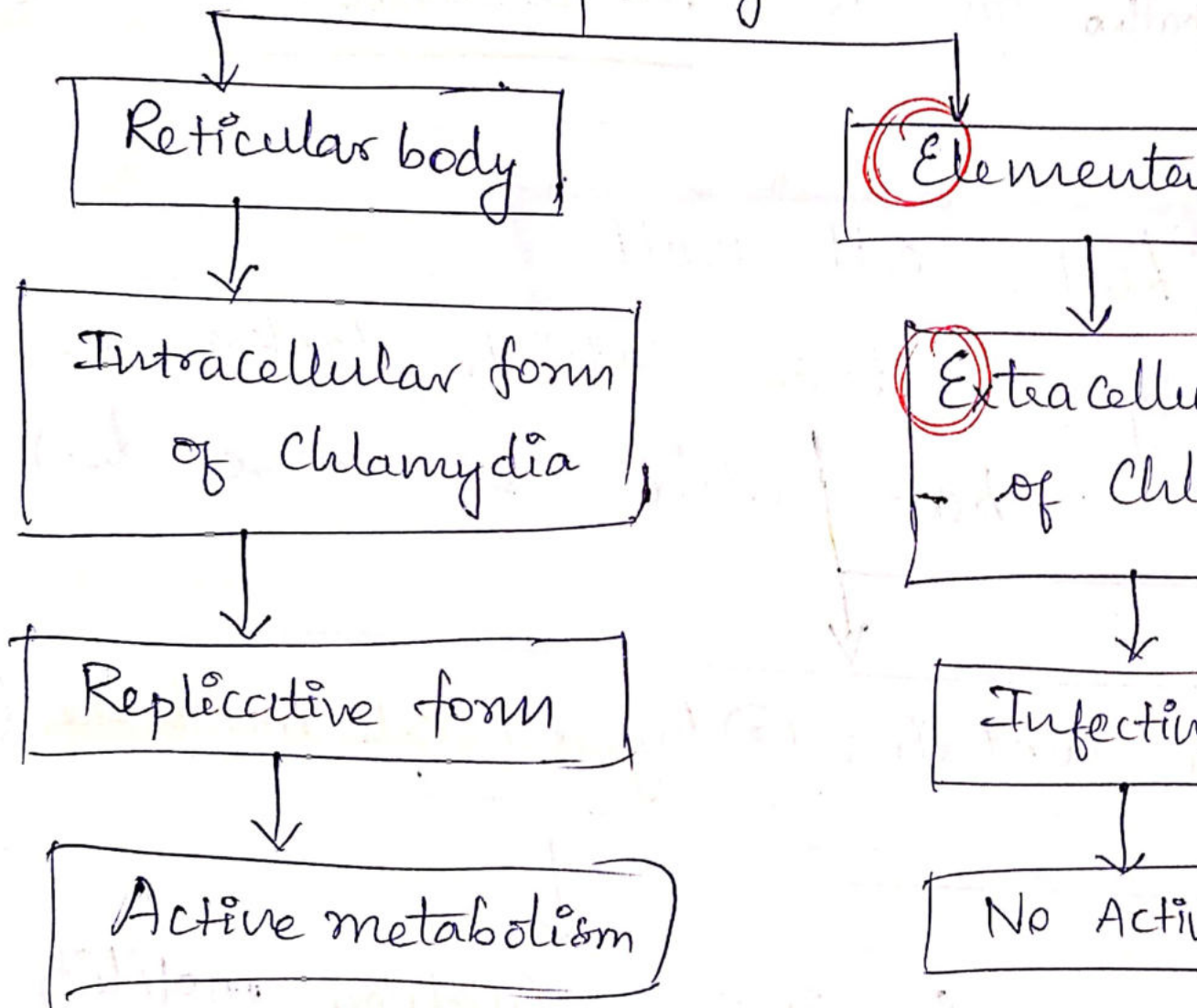
After multiplication, they come out of the cell, Now they are called Elementary Body

- (i) Extracellular form of Chlamydia.
- (ii) Infective form of "
↳ ∴ it infects other cells

∴ Infection doesn't req. Energy
No active metabolism takes place

Summary of life cycle

② stages



II) Atypical pneumonia - Mycoplasma

m/c patho. sps. is M. pneumoniae aka Eaton's
- agent -

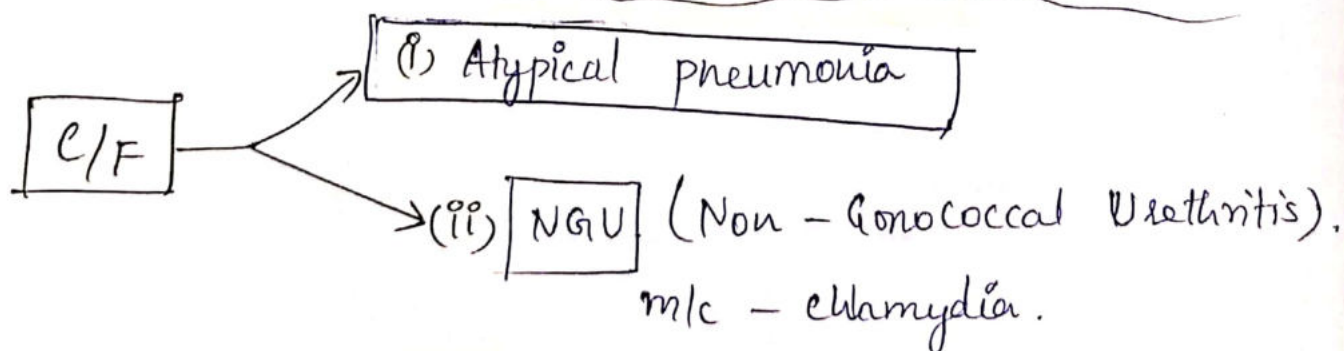
* Lacks cell wall.

(only bacteria which lacks cell wall but alive & cause ds.)

But contains 3 layered cell membrane (STEROL / Cholesterol)

So it shows Gliding motility although flagella is absent in mycoplasma

so its resistant to All the cell wall inhibitors Antibiotics.



Δ sis:

(i) Microscopy

Diene's method → staining for *Mycoplasma*

Stain: Methylene blue

(ii) Culture

Selective media:

PPLO agar

(Pneumonia
Like Org.)



FRIED EGG colonies



(iii) ID

Immunological Tests: (Used prev. but Not now)

(i) Cold Agglutinin Test

detect Ab's → Human 'O' blood group
RBC Ag.

(ii) Streptococcal MG test

detect Ab's → Streptococcal MG Ag.

Both are Heterophile Agglutination Test

III) Atypical pneum. Legionella

m/c patho sps. → Legionella pneumophila

C/F

i) Atypical pneumonia assoc. c diarrhoea

ii) Pontiac fever

↓
Mild flu like illness

differentiating
Atyp. pneum. of
Legionella from
others.

Δ^{His}:

(i) Culture:

Selective media → BCYE agar

(Buffered (Charcoal (Yeast (Extract))