

Mechanisms of Antimicrobial Resistance in Bacteria And Treatment

Effects of Antibiotics on Bacteria

- Bacteriostatic effect
- Bactericidal effect

Effects of Antibiotics on Bacteria

■ Bacteriostatic effect

- Penicillin
- Kinolons
- Aminoglycosides

■ Bactericidal effect

- Erythromycin
- Clindamycin
- Tetracyclines
- Sulfonamides
- Chloramphenicol

Effects of Antibiotics on Bacteria

1- Prevent to cell wall synthesis

(Penicillins)

2- Influencing to cytoplasmic membrane (polymyxin)

3- Prevent to protein synthesis (tetracycline,
gentamicin, macrolides)

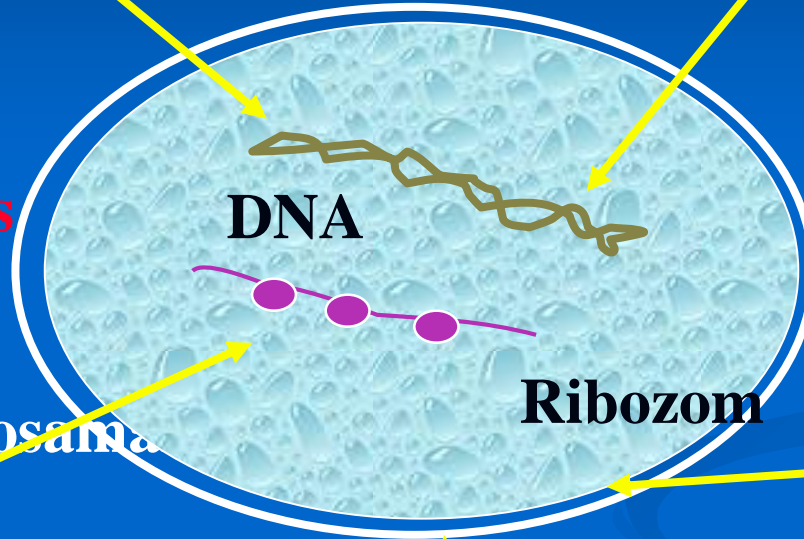
4- Influencing to nucleic acid function and synthesis
(quinolones)

Inhibition of DNA synthesis

Sulfonamides
Trimethoprim
Ormethoprim

Inhibition of Nucleic acid synthesis

Quinolones
Rifampin
Nitrofurans



Effects to cell membrane
polymyxins

Effects to ribosomal activity

Aminoglycosides
Chloramphenicol
Macrolides
Lincosamides
Tetracyclines

Inhibition of cell wall synthesis

Beta Lactams
Bacitracin
vancomycin