

# ANTIMICROBIAL THERAPY

Summarizing of examples in lecture ...

## INHIBITOR (THERAPY) :

Inhibition of cell wall synthesis

- 1- Penicillins.
- 2- Cephalosporins.
- 3- Vancomycin .
- 3- Bacitracin.

Inhibition of microbial protein synthesis

- 1- Tetracyclines (static).
- 2- Chloramphenicol (static).
- 3- Aminoglycosides (cidal).
- 4- Macrolides (static).  
e.g. erythromycin .
- 5-clindamycin (static).

Inhibition of folates synthesis

Available as combination, Co-trimoxazole, or separately.

- 1- Sulphonamides (static).
- 2- Trimethoprim (static).

Inhibitors of RNA Synthesis and Function

Rifampicin (bactericidal).

**Combination therapy** : Since resistance is common, rifampin is usually used in combination therapy

Inhibitors of DNA synthesis and function

- Quinolones :**
- 1- Nalidixic acid.
  - 2- Ciprofloxacin.
  - 3- oxolinic acid(bactericidal).

## RESISTANCE :

Modification of the target: Sequence mutation

*pneumococcus* resistance to penicillins.

Modification of the target: Target bypass

Meticillin resistant *S.aureus* MRSA  
(PBP2 coded by mec A gene).