COMPLEMENTARY CHEMISTRY COURSES
SEMESTER - III
19U3CPCHE03.2
BIO-INORGANIC AND HETEROCYCLIC CHEMISTRY

(*For students who have opted Life Sciences as main*)

ANTIBIOTICS

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ANTIBIOTICS

- Chemical substances obtained from microorganisms

An ideal drug satisfies

- Inhibit the growth or destroys one or more species of microorganisms
- High specific activity
- No side effects
- Chemical stability
- Available at low cost

Classification

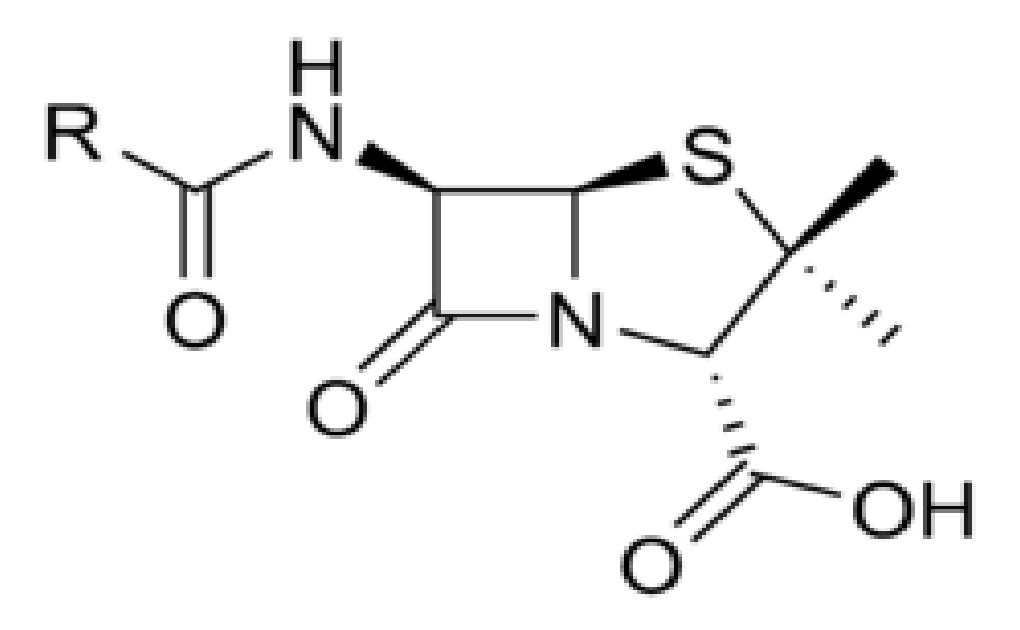
- Broad spectrum

  Eg: Tetracyclins, Chloramphenicol

- Narrow spectrum antibiotics

  Eg:Pencillin

1. Pencillin



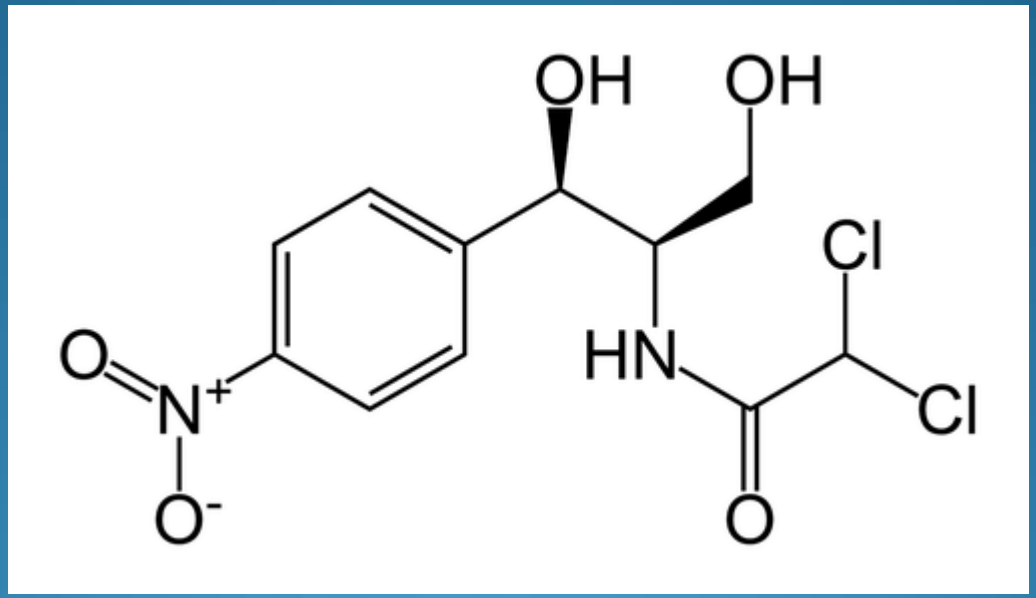
Mechanism of action

- Inhibition of cellwall synthesis by the disruption of peptidoglycan synthesis

Uses

- Respiratory system infections
- Bacterial endocarditis
- Meningitis
- Gonorrhoea &syphilis
- Urinary Tract infections

2. Chloramphenicol



Mechanism of action

- RNA formed in presence of chloramphenicol is different from that formed in its absence and thus interferes in the protein metabolism in bacteria

Uses

- Typhoid fever
- Influenza
- Meningitis
- Chronic bronchitis

Guidelines

- Under the prescription of medical practitioner
- Do not use antibiotics in viral disease