

Fidaxomicin (macrolides)

- inhibit RNA polymerase ,Then disrupting bacterial transcription

- G+ aerobes and anaerobes

Note: minimal systemic absorption and remains within the gastrointestinal tract. This is ideal for the treatment of *Cl. difficile* infection, which occurs in the gut.

Chloramphenicol

- is restricted to life-threatening infections for which no alternatives exist
- static or cidal depending on MO (H influenzae)
- bind to 50S & inhibit trans peptidation
- G+, G- bacteria+ rickettsia+ anaerobs
- oral, i/v, pass BBB
- enzyme inhibitor, secreted in breast milk
- produce bone marrow toxicity

SE:

- GI upset, growth candida albicans

- Anemia:

 - * Reversible anemia dose related

 - * Hemolytic in patient with deficiency of G6PD

 - * Aplastic anemia (may persist after cessation)

- Gray baby syndrom

 - low capacity to glucuronidation & renal function
under develop in neonate also in adult in high dose

Clindamycin:

- Same MOA of erythromycin
- Used in **abdominal infection** and **infections due to G⁺, streptococcus and anaerobic bacteria**

SE:

- Pseudomembranous colitis (due growth of clostridium)
- (so metronidazol or vancomycin used)

Streptogramins

Quinupristin , Dalfopristin

-Mixture in ratio 30/70

enterococci+ G+

-Each drug bind in different site on 50S and similar to the macrolides

SE:

- arthralgia & myalgia
- hyper bilirubinemia (due competition with antibiotic on excretion)

Linezolid

- Static , cidal with streptococci + Cl perfringens
- Inhibit the formation of 70S initiation complex
- vancomycin resistant enterococcus, S hemolyticus, S epidermidis, Pen resistant Strept pneumonia, corynebacterium tuberculosis, listeria monocytogen, Cl perfringens

- the metabolite also have antibacterial effect
- Nausea , diarrhea, headache as SE