

TREATMENT OF SYPHILIS

Drug	MOA	Pharmacokinetics& Contraindications	ADRs
1-PENICILLINS <div><div><div><div><div></div><div></div></div><div>Doxycycline</div></div><div><div><div></div><div></div></div><div>Minocycline</div></div></div><div>✓ Not effective for treatment of gonorrhea</div></div>	Inhibit the synthesis of bacterial cell wall . <div><div>All 3 are Penicillinase sensitive</div></div>	Penicillin G (IV) ✓ Short duration of action (4-6 hrs) ✓ Acid unstable Procaine penicillin (IM) ✓ Long acting (24-48hrs) ✓ Acid unstable Benzathine penicillin (IM) ✓ Long acting (every 3-4 weeks) ✓ Acid unstable	<div><div>■ Hypersensitivity</div><div>■ Nephritis</div><div>■ Convulsions with high doses or in renal failure</div></div>
2-TETRACYCLINES <div><div><div><div></div><div></div></div><div>Doxycycline</div></div><div><div><div></div><div></div></div><div>Minocycline</div></div></div> <div>✓ Not effective for treatment of gonorrhea</div>	<div><div>✓ Bacteriostatic</div><div>✓ Inhibit bacterial protein synthesis by reversibly binding to 30 S bacterial ribosomal subunits .</div></div>	<div><div>■ Well absorbed orally</div><div>■ Long-acting (once daily)</div></div> <div>Contraindications: 1-Children (below 10 years) 2-Pregnancy 3- Nursing mothers</div>	1-gastric upset(nausea, vomiting, diarrhea) 2-Effects on calcified tissues (discoloration of teeth)&bone deformity 3-Hepatotoxicity 4-Phototoxicity 5-vestibular problems (vertigo, nausea, vomiting) 6-Superinfections
3-MACROLIDES (clarithromycin)	<div><div>✓ Inhibits bacterial protein synthesis by binding to bacterial 50S ribosomal subunits</div></div>		<div><div>✓ Gastric upset</div><div>✓ Inhibits hepatic microsomal enzyme (P-450 system)</div></div>
4-Cephalosporins β-lactam antibiotics 3rd Generation cephalosporins <div><div><div><div></div><div></div></div><div>cefixime</div></div><div><div><div></div><div></div></div><div>Ceftriaxone</div></div></div>	Inhibits bacterial cell wall synthesis Bactericidal <div><div>Treatment of GONORRHEA</div></div>		<div><div>✓ Allergic manifestations</div><div>✓ Thrombophlebitis</div><div>✓ Superinfection</div><div>✓ Diarrhea</div></div>
Recommended regimens (1st line treatment) of uncomplicated gonorrheal infections : 1-Single -dose treatment with 3rd generation cephalosporins 125mg of ceftriaxone, IM or 400 mg of cefixime , orally			
2- FLUOROQUINOLONES Single oral dose of : Ciprofloxacin ,Ofloxacin,Levofloxacin	<div><div>■ All are bactericidal</div><div>■ Inhibit DNA synthesis by inhibiting DNA gyrase enzyme</div></div>	Contraindications: ✓ Pregnancy ✓ Nursing mothers ✓ Children under 18 years	<div><div>✓ GIT upset that leads to Diarrhea & nausea</div><div>✓ headache that leads to dizziness</div><div>✓ arthropathy</div><div>✓ phototoxicity</div></div>
3- Spectinomycin ■ 2g IMI (once)	■ Inhibits protein synthesis by binding to 30 S ribosomal subunits		<div><div>✓ Pain at the site of injection</div><div>✓ Fever & Nausea</div><div>✓ Nephrotoxicity (not common)</div></div>

Treatment of Complicated gonorrheal infections With conjunctivitis in new born

1-Silver nitrate

Its **germicidal effects** are due to precipitation of bacterial proteins by liberated silver ions

2-ERYTHROMYCIN

0.5% ointment for treatment & prevention of corneal & conjunctival infections.

