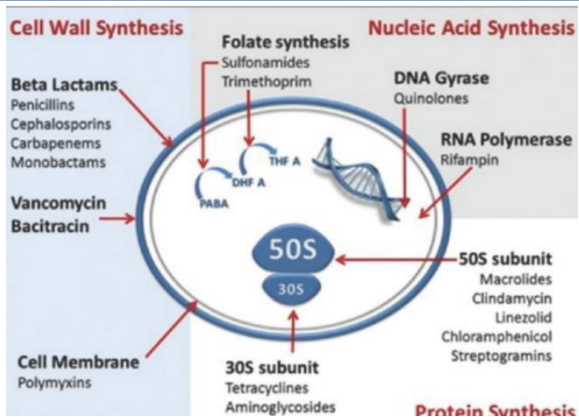


ANTIBIOTIC	MECHANISM	G+	G-	CURIOSITIES
BETA-LACTAMS (penicillin)	INHIBIT BACTERIAL WALL SYNTHESIS	++		“Frequent” anaphylaxis and allergies
CEPHALOSPORINS <i>*BACTERICIDAL*</i> -1st generation -2nd generation -3rd generation -4th generation	INHIBIT BACTERIAL WALL SYNTHESIS	+++ ++ + ++	+ ++ +++ +++	1 st generation low cross-allergy with penicillin allergies.
QUINOLONES <i>*BACTERICIDAL*</i>	INHIBIT DNA GYRASE, TOPOISOMERASE (DNA SYNTHESIS)	++	+++	Cartilage toxicity, Tendonitis, tendon rupture NOT RECOMM. 1 ST LINE UNCOMPLICATED UTI
NITROFURANTOIN <i>*BACTERICIDAL*</i>	BACTERIAL FLAVOPROTEINS -- -ACTIVE PRODUCTS--MULTIPLE MECHANISMS OF ACTION	++	++	Hemolytic anemia (G6PD), lung fibrosis Good for urine infections (bad systemic) Lack coverage proteus, pseudomonas
FOSFOMYCIN <i>*BACTERICIDAL*</i>	INHIBITS BACTERIAL WALL SYNTHESIS	++	++	Allergic reactions, anaphylaxis Toxic megacolon 1 ST LINE ACUTE UNCOMPLICATED CYSTITIS
TMP-SMX	INHIBITS FOLATE	++ (MR Staf AUREUS)	++	Stevens Jonhson syndrome, Kernicterus (kids), hemolytic anemia
VANCOMYCIN <i>*BACTERICIDAL*</i>	INHIBITS BACTERIAL WALL SYNTHESIS	+++		Red man syndrome (quickly IV) Ototoxicity, Nephrotoxicity
AMINOGLYCOSIDES (gentamicin, amikacin) <i>*BACTERICIDAL*</i>	INHIBIT m-RNA 30s SYNTHESIS		+++	Ototoxicity, Nephrotoxicity
MACROLIDES (erythromycin, azythro.)	INHIBIT m-RNA 50s SYNTHESIS	++	+	Abdominal pain, QT-prolongation Increases other drugs levels (CYP)
TETRACYCLINES (doxycycline, tetracycline)	BIND 30S SUBUNIT INHIBITS aminoacyl t-RNA to the RIBOSOME	++	++	Teeth yellowing Inhibit bone growth Antiacids interfere absorption
METRONIDAZOLE <i>*BACTERICIDAL*</i>	UPTAKE BY CELL, REDUCED TO ACTIVE METABOLITES, DNA SYNTHESIS	ANAEROBIC	PROTOZOA	Disulfiram like reaction Metallic taste
CLINDAMYCIN	BINDS 50S SUBUNIT INHIBITS peptidyl transferase	ANAEROBIC	GRAM +	Pseudomembranous enterocolitis



PREGNANCY: Penicillins, including amoxicillin, ampicillin, Cephalosporins, Fosfomycin, Nitrofurantoin, Erythromycin, Clindamycin, (TMP-SMX, but should be avoided during the first trimester of pregnancy)

IMAGE: Kapoor G, Saigal S, Elongavan A. Action and resistance mechanisms of antibiotics: A guide for clinicians. doi:10.4103/joacp.JOACP_349_15