

PHARMACOLOGY

Pharmacodynamics			what does drug do to the body			
Pharmacokinetics			what does the body do to the drug			
ION CHANNELS						
	CATION			ANION		
Primary	PiSo	Potassium IN, Sodium OUT	PhIClO	Phosphate IN, Chloride OUT		
Secondary	MiCo	Magnesium IN, Calcium OUT	SullBiO	Sulfate IN, Bicarbonate OUT		
ION CAUSING STIMULATORY & INHIBITORY EFFECT						
De Ca Na +		Depolarization (stimulatory) Calcium & Sodium				
Hy K Cl -		Hyperpolarization (inhibitory) Potassium and Chloride				
TYPES OF RECEPTORS				DOSE RESPONSE RELATIONSHIP		
		Location	Onset	• Graded-Dose Response		
I	Ionotropic/ Ligand-gated Ion channels	Cell Membrane	Millisecond	Parameters:		
				Efficacy (ε)	Maximum achievable response	
II	Metabotropic/ G-Protein coupled/ Serpentine	Cell Membrane	Seconds	Ceiling dose (D _c)	Smallest dose that produces the maximum response	
				Potency (P)	Doses needed to achieve 50% of the maximum response	
III	Kinase-linked	Cell Membrane	Minutes	Slope	Degree of changes in response with a change in dose	
IV	Transcription linked/ Nuclear	Nucleus	Hours			
FICK'S LAW OF DIFFUSION				Applications:		
$dQ/dt = \frac{D \times A \times K}{h} (C_{GI}-C_P)$				1. Efficacy vs. Potency		
				2. Full, Partial & Inverse Agonist		
dQ/dt				3. Competitive Antagonism		
				4. Noncompetitive Antagonism		
D	Diffusion coefficient			• Quantal Dose Response		
A	Surface Area			Parameters:		
K	Partition coefficient			ED ₅₀	Median Effective Dose	
1/h	Membrane thickness			TD ₅₀	Median Toxic Dose	
(C _{GI} -C _P)	Concentration gradient			Therapeutic Index (I)	Measure of relative safety $I = \frac{TD50}{ED50}$	
DIFFUSION COEFFICIENT						
Determinants:	Particle Size			Margin of Safety		
	Lipophilicity					
Factors:	Partition coefficient (K)		$K = \frac{Coil}{CH2O}$	BIOAVAILABILITY (F)		
				Parameters		
Degree of Dissociation / Ionization				C _{max}	Maximum drug plasma concentration - measures both rate & extent - most variable	
L	Lipophilic		H			Hydrophilic
U	Unionized		I			Ionized
N	NonPolar		P			Polar
A	Absorbed		E			Excretion
Bioavailability studies:				T _{max}	Time to reach T _{max} - measures the rate of absorption	
Absolute bioavailability		$F_{abs} = \frac{AUC\ nonIV}{AUC\ IV}$				
Relative bioavailability		$F_{rel} = \frac{AUC\ EV\ (gen.)}{AUC\ EV\ (std.)}$		AUC	Area Under the Curve - measures the extent - most important BA parameter	
Volume of Distribution		$V_d = \frac{Dose}{Concentration}$				

I. ANS

RECEPTORS		Location		Response	
ADRENERGIC RECEPTORS					
Alpha-1	Eyes	Smooth muscle		Contraction	
		Radial muscle		Mydriasis	
		Blood vessels		Vasoconstriction	
		Prostate Gland		Urinary Retention	
		Bladder Trigone			
		Bladder Sphincter			
		Pilomotor		Goosebumps	
		Cutaneous Splanchnic BV		Gooseflesh	
Alpha-2	Presynaptic	Vasomotor center (CNS)		Autoregulation	
				Central - Sedation, Depression	
				Peripheral - Vasodilation	
	Postsynaptic	Vascular SM/ Peripheral BV		Vasoconstriction	
Beta-1		Heart		(+) inotropism	
				(+) chronotropism	
				(+) dromotropism	
		Kidney		Renin release in Juxtaglomerular apparatus	
Beta-2		Smooth Muscle		Relaxation	
		Bronchial		Dilation	
		Uterus		Relaxation/Tocolysis	
		Vascular SM		Dilation	
		Neuromuscular end plates		Contraction (Tremors)	
Beta-3		Adipose tissues		Lipolysis	
Dopamine-1		Renal & Splanchnic BV		Dilation	
Dopamine 2-4		Peripheral = GIT		↓ GI Motility	
		Central = CNS		Altered behaviour, perception, Motor activity	
		Epinephrine	B ₁ = B ₂ > A ₁		
		Norepinephrine	B ₁ > A ₁		
		Dopamine	D ₁ > B ₁ > A ₁		
CHOLINERGIC RECEPTORS					
Muscarinic-1	Gastric Nerves		↑ HCl secretion		
Muscarinic-2	Heart Nerves		(-) Inotropism		Bradycardia
			(-) Dromotropism		
Muscarinic-3	Exocrine glands		Secretion		
	Smooth Muscle	Eyes	Ciliary muscle : ↑ near vision		
			Circular muscle: Miosis		
		Bronchial	Constriction		
		GIT/Urinary	Walls/Detrussor: Contraction		Diarrhea /Urination
			Trigone/Sphincter: Relaxation		
Neural Nicotinic	N _N	Ganglion / CNS		Stimulation	
Neural Muscarinic	N _M	Neuromuscular end plates / Skeletal Muscle		Contraction (Para/Sympha)	
G-Protein = Receptor					
q	Alpha-1	q	M-1	s	D1
i	Alpha-2	i	M-2	i	D2
s	Beta-1	q	M-3	q	H1 / V1
s	Beta-2			s	H2 / V2
Kiniss si boy, kinick ni girl kasi gusto ng sexs					

ANS DRUGS				
SYMPHATHETIC NERVOUS SYSTEM				
SYMPHATHOMIMETIC / ADRENERGIC AGONIST				
❖ DIRECT-ACTING				
A. Non-selective	Epinephrine		Dopamine	
	Norepinephrine			
B. Selective				
Non selective B	Isoproterenol		Isoprenaline	
Selective B1	Dobutamine		* partial agonist	Penalterol
Selective B2	SABA	Salbutamol/ Albuterol		Terbutaline
		Metaproterenol		Pirbuterol
	LABA	Salmeterol		Bambuterol
		Formoterol		Indacaterol
	Tocolytics	Ritodrine		Tertbutaline
		Isoxsuprine		
Selective A1 PropMethPhen + -zoline	Phenylephrine		Tetrahydrozoline	Midodrine
	Methoxamine		Oxymetazoline	Xylometazoline
	Propyhexedrine		Nafazoline	
Selective A2 GuaMeth + - nidine	Clonidine		Guanfacine	
	Methyldopa		Guanabenz	
	Apraclonidine		Brimonidine	
Selective D1	Fenoldopam			
❖ INDIRECT-ACTING				
A. Releasers	Tyramine		Ephedrine	
	Amphetamine		Pseudoephedrine	
B. Reuptake Inhibitors	Cocaine		Reboxetine	TCA
❖ CENTRALLY-ACTING Phen-				
Phenylpropanolamine (PPA)		Amphetamine/ Methamphetamine		Modafenil
Phentermine		Methylphenidate/ Mephenidate		
Phenmetrazine		Pemoline		
SYMPATHOLYTICS / ADRENERGIC ANTAGONIST				
❖ ALPHA BLOCKERS				
A. Non-Selective	Irreversible	Phenoxybenzamine		
	Reversible	Phentolamine		+ Tolazoline
B. Selective A1 -zosin	Prazosin	Alfuzosin		Terazosin
	Doxazosin	Tamsulosin		Indoramin
C. Selective A2	Yohimbine	Rauwolscine (alkaloids)		
❖ BETA BLOCKERS -olol/-lol				
A. Non-Selective		The rest of -olols & -alols		Shortest t½: Esmolol Longest t½: Nadolol Most β sel.: Nebivolol
B. Cardioselective CBEAM + NN		Celiprolol	Acebutolol	
		Bisoprolol	Metoprolol	
		Betaxolol	Nebivolol	
		Esmolol	Nadolol	
		Atenolol		
C. Intrinsic Sympathomimetic Activity CLAP	Carteolol		Labetalol	Pindolol
	Celiprolol		Atenolol	Penbutolol
D. Membrane Stabilizing Activity PPALM	Pindolol		Acebutolol	Metoprolol
	Propranolol		Labetalol	
E. Mixed A & B	Labetalol		Medroxalol	
	Carvedilol		Bucindolol	

PARASYMPHATHETIC NERVOUS SYSTEM				
PARASYMPATHOMIMETIC / CHOLINERGIC AGONIST				
❖ DIRECT ACTING				
A. Choline Esters	Mixed (M and N) CAM	Carbachol	Acetylcholine	Metacholine
	Muscarinic	Bethanechol		
B. Alkaloids	Mixed	Arecoline		
	Nicotinic only	Nicotine	Varenicline	Lobeline
	Muscarinic only	Muscarine	Pilocarpine	
❖ INDIRECT-ACTING			Chemical & DOA	
A. Short Acting	Edrophonium		Aminoalcohol (15-30mins)	
B. Intermediate-acting (-stigmine)	Physostigmine/	Eserine	Carbamates (2-8hrs; <24hrs.)	
	Pyridostigmine	Amбенonium		
	Neostigmine	Demecarum		
C. Very long-acting	Echothiopate	Tabun	Organophosphates (>24hrs.; days to weeks)	
	Malathion	Sarin		
	Parathion	Soman		
D. CNS-acting (Alzheimer's dse.)	Rivastigmine	Donepezil	Riva is tact, she's done with gala	
	Tacrine	+ Galantamine		
PARASYMPHATOLYTIC/ CHOLINERGIC ANTAGONIST				
❖ ANTI-MUSCARINIC				
A. Atropine				
B. Others:	CNS	Scopolamine	Biperiden	
		Trihexyphenidyl	Benztropine	
	Mydriatic-Cycloplegic -tropine	Atropine	Cyclopentolate	
		Homatropine	Panistropine	
		Scopolamine	Tropicamide	
	Bronchodilator -tropium	Ipratropium	Tiotropium	
		Oxytropium		
	Selective M1-blocker (GIT) -zepine	Pirenzepine	Telenzepine	
	Selective M3-blocker (Urinary Bladder)	Methoscopolamine	Dicycloverine	
		Glycopyrrolate	Oxybutinin	
		Scopolamine	Hyoscine-N-butylbromide	
		Dicyclomine	Clidinium	
		Anisotropine	Propantheline	
❖ ANTINICOTINIC				
A. Nn / Ganglionic Blockers	Trimetaphan	Hexamethonium		
	Mecamylamine			
B. Nm Blockers	Depolarizing NMB	Succinylcholine		
	Non-Depolarizing NMB	Isoquinoline (-curium)	Atracurium	
			Mivacurium	
		Steroidal (-curonium)	Pancuronium	
+ Regenerator	Pralidoxime	Vecuronium		

II. AUTACOIDS

❖ Histamines		Location		Effect		
H1	Gq	Vascular SM		Dilation		Partial Agonist: Histaprodifen Partial Antagonist: Tripolidine
		Bronchi, GIT		Contraction		
		Endothelial cells		Contraction		
		Sensory nerve endings		Itch and pain		
		Brain		Excitatory Wakefulness		
H2	Gs	Gastric Glands (parietal cells)		Basal Gastric Acid Secretion		
		Mast cells		Promote Histamine Release		
H3	Gi	Pre-synaptic: Brain, Myenteric plexus		GIT Contraction		
H4	Gi	WBC: Eosinophils, Neutrophils, CD4 T-Lymphocytes				
DRUGS						
Agonist		Histamine		Betahistine		
		H3	Partial Agonist	Imetit	R-α methyl histamine	
				Imepip		
H4	Partial Agonist	Clozapine				
Antagonist		Physiologic	Epinephrine			
H1 Blockers		1 st Gen/ Sedating/ Classical				
		Ethanolamine	Diphenhydramine		Carbinoxamine	
			Dimenhydrinate		Doxylamine	
		Ethylenediamine	Pyrilamine		Tripelenamine	
		Piperazine	Hydroxyzine		Cyclizine	
			Meclizine			
		Alkylamine	Brompheniramine		Chlorpheniramine	
		Phenothiazine	Promethiazine			
		Piperidine	Cyproheptadine			
		2 nd Gen./ Non or Less Sedating				
		Piperidine (true)	Loratidine		Fexofenadine	
			Desloratidine		Levocetirizine	
Piperazine (less)	Cetirizine		Acrivastatine			
H2 Blockers -tidine	Cimetidine		Famotidine			
	Ranitidine		Nizatidine			
H3 blockers	Thioperamide					
	Partial Antagonist	Indophenpropit		Tiprolisant		
H4	Antagonist / Partial Agonist		Clobenpropit			
❖ Serotonin		Happy Hormone; responsible for mood regulation				
		Effect		DRUGS		
5HT _{1A} CNS	Gi	To inhibit further release	Partial Agonist	Buspirone	Repinotan	
5HT _{1B/1D} Vascular SM	Gi	Constriction	Full Agonist “-triptans”	Sumatriptan	Zolmitriptan	
				Naratriptan	Rizatriptan	
5HT _{2A} Uterine SM	Gq	Contraction	Agonist “Ergot”	Ergotamine	Methylergometrine	
			Antagonist	Ergonovine	Dihydroergotamine	
5HT ₃ CTZ		Emesis	Antagonist “-setron”	Methysergide	Ketanserin	
				Granisetron	Ondansetron	
5HT ₄ GIT	Gs	Peristalsis	Antagonist	Dolasetron	Palonosetron	
			Partial Agonist	Tegaserod	Cisapride	
			Full Agonist	Prucalopride		

III. ANALGESICS

❖ COX INHIBITORS			
NON-SELECTIVE			
Salicylates	Aspirin	Mg choline salicylate	Salicylsalicylate
	Diffunisal	Na salicylate	Methylsalicylate
Pyrazol one	Phenylbutazone	Sulfinpyrazone	Apazone
	Oxyphenbutazone	Dipyrone	
Phenyl ac etic acid	Sulindac	Alcofenac	Etodolac
	Diclofenac	Ketorolac	Nabumetone
Fen amates	Mefenamic acid	Flufenamic acid	Meclofenic acid
Propionic acid -pro/-profen	Ibuprofen	Flubiprofen	
	Ketoprofen	Naproxen	
Indole	Indomethacin		
Pyrole-alkanoic acid	Tolmetin		
Oxicam	Piroxicam		
Selective COX-2	Meloxicam		
Specific COX-2 -coxib	Celecoxib	Enterocoxib	
❖ NON-NARCOTIC			
Para-aminophenol	Acetaminophen/ Paracetamol		Phenacetin
❖ NARCOTIC			
Natural Opium	Morphine	Codeine	Thebaine
Semi-synthetic	Heroin	Hydromorphone	Hydrocodone
	Apomorphine	Oxymorphone	Oxycodone
Synthetic	Methadone	Loperamide	Alfentanil
	Meperidine	Tramadol	Sulfentanil
	Diphenoxylate	Fentanyl	Dofentanil
CLASSIFICATION BY DYNAMICS			
Strong Agonist “ Morphine +L ”	Morphine	Oxymorphone	Hydromorphone
	Meperidine	Fentanyl	Levorphanol
Antagonist “ Nal + L ”	Naloxone	Naltrexone	
	Nalorphine	Levalorphan	
Partial Agonist “ PNB ”	Pentazocine	Buprenorphine	Codeine
	Butorphanol	Nalbuphine	Hydrocodone
Mixed agonist-antagonist	Buprenorphine	Nalbuphine	
Miscellaneous	Codeine	Loperamide	Tramadol

DRUGS FOR GOUTY ARTHRITIS			
A. Acute Gout	Colchicine	Glucocorticoids:	Methylprednisone
	NSAID		
B. Chronic Gout	Colchicine	Penicillamine	
	Glucocorticoid	Prednisone	Mathylprednisolone
		Triamcinolone	
	Uricosuric Agents	Probenecid	Sulfinpyrazone
	Xanthine Oxidase Inhibitor	Allopurinol	Febuxostat
	Urate Oxidase Analog	Pegloticase	Rasburicase

DRUGS FOR RHEUMATIC DISORDERS				
❖ NSAIDS	except Aspirin, Tolmetin			
❖ DMARDS (DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS)				
1. Non-biologics / Classical / Traditional				
A. Methotrexate				
B. Anti-malarial Agents	Chloroquin	Hydroxychloroquin		
C. Sulfasalazine	Sulfapyridine			
D. Immunosuppresants and Cytotoxic Drugs	Leflunomide	Cyclosporine		
	Azathioprine	Mycophenolate mofetil		
	Cyclophosphamide			
2. Biologics				
TNF α blocking agents	Adalimumab	Etanercept	Golimumab	
	Infliximab	Certolizumab		
IL-1-neutralizing agents	Anakinra			
B-cell depleting agent	Rituximab			
T-cell activation inhibitor	Abatacept			
Anti-IL-6 receptor antibody	Tocilizumab			
❖ Gold Compounds	Auranofin	oral	Aurothioglucose Aurothiomalate	parenteral
❖ Penicillamine				
❖ Glucocorticoids				

IV. Drugs for COAGULATION Disorder

ANTITHROMBOTICS					
❖ Anticoagulants					
A. Direct Thrombin Inhibitor	Hirudin / Lepirudin			Bivalirudin	
	Dabigatran etexilate mesylate			Argatroban	
B. Indirect Thrombin Inhibitor	Heparin			Warfarin	
	Regular Unfractionated Heparin			Dicumarol	
Low Molecular Weight/ Fractioned Heparin	Apixaban		Fondaparinux	Danaparoid	
	Enoxaparin		Tinzaparin	Fraxiparin	
	Dalteparin		Fraxiparin	Danaparoid	
❖ Antiplatelet					
A. TXA ₂ Inhibitors		Aspirin			
B. ADP Inhibitor		Clopidogrel		Prasugrel	Ticlopidin
C. Phosphodiesterase Inhibitor	3	Dipyridamol		5	Sildenafil
	4	Raftumilast			Cilostazol
D. Glycoprotein IIb/IIIa Inhibitors	Abciximab			Eptifibatide	
	Tirofiban				
❖ Fibrinolytics/ Thrombolytics (-kinase, -teplase)					
A. Streptokinase					
B. APSAC		Anistreplase			
C. Tissue Plasminogen Activator	Natural		Alteplase		
	Recombinant		Reteplase	Tenecteplase	
D. Urokinase					
PROTHROMBOTICS					
A. Vitamin K	Vitamin K ₁	Phytomenadione		Vitamin K ₃	Menadione
	Vitamin K ₂	Menaquinone			
B. Antiplasmin		Epsilon-aminocaproic acid		Tranexamic acid	
C. Serine Protease Inhibitor		Aprotinin			

V. Drugs For LIPID Disorder

❖ Statins (↑ Cholesterol)		
A. SHORT-ACTING	Fluvastatin	Pravastatin
	Simvastatin	Lovastatin
B. LONG-ACTING	Atorvastatin	Rosuvastatin
❖ Fenofibrates (↑ Triglycerides)	Gemfibrozil	Clofibrate
	Fenofibrate	Bezafibrate
❖ Nicotinic Acid	Vit. B ₃ (Niacin)	
❖ NPCILI-Like Transporter Inhibitor	Ezetimibe	
❖ Bile Acid Binding Resin	Colestipol	Colesevelam
	Cholestyramin	
❖ Cholesteryl Ester Transfer Protein Inhibitors	Anacetrapib	Dalcetrapib

VI. Cardiovascular drugs

DRUGS FOR HYPERTENSION			
❖ Diuretics			
A. Carbonic Anhydrase Inhibitors “-zolamide”	Acetazolamide	Dorzolamide	
	Brinzolamide	Dichlorphenamide	
B. Osmotic Diuretic	Mannitol		
C. Loop Diuretics	Sulfonamide	Furosemide	Bumetanide
	Sulfonyurea	Torsemide	
	Phenoxyacetate	Ethacrynic acid	
D. Thiazide Diuretic	Hydrochlorothiazide	Chlorthalidone	Metalazone
	Chlorthiazide	Indapamide	
E. Potassium-Sparring Diuretic	Aldosterone Antagonist		Spirinolactone
	Direct Na-Cl transporter		Epterenone
F. Other Diuretics	ADH Agonist “-pressin”		Amiloride
	ADH Antagonist “-vaptan”		Triamterene
			Desmopressin
		Convaptan	Terlipressin
		Lixivaptan	Demeclocycline
❖ Sympathoplegics			
A. Centrally Acting	Clonidine	Guanfacine	
	Methyldopa	Guanabenz	
B. Peripherally-Acting	Reserpine	Guanadrel	Guanethidine
C. Ganglionic Blockers			
D. Alpha Blockers			
E. Beta Blockers			
❖ Vasodilators			
A. Arteriolar Vasodilators	Hydralazine	Minoxidil	Diazoxide
B. Mixed Arteriolar & Venous Dilators	Na nitroprusside	Organic Nitrates	
❖ Calcium Channel Blockers			
A. Dihydropyridine “-dipine”	Nifedipine	Amlodipine	
	Nimodipine	Felodipine	
B. Non-Dihydropyridine	Verapamil	Diltiazem	
BASED ON DURATION OF ACTION			
Intrinsically short-acting	Intrinsically-long acting	Modified-Long acting	
NonDHP CCBS	Lacidipine	Plendal ER	
All DHP CCBS except “L,A”	Lercanidipine	Versant SR	
	Amlodipine	Verapamil SR	

❖ Angiotensin Modifiers			
A. Angiotensin-Converting Enzyme (ACE) Inhibitors “-pril”	Sulfhydryl	Captopril	
	Phosphinyl	Fosinopril	
	Carboxyl	Lisinopril Enalaprilat	Enalaprilat Perindopril
B. Angiotensin Receptor Blocker (ARBS) “-sartan”	Losartan	Valsartan	
	Candesartan		
C. Renin Inhibitor	Aliskerin		

DRUGS FOR ANGINA PECTORIS		
❖ Nitrovasodilators		
A. Very Short Acting (Lasts 5-10mins)	Amyl nitrate	
B. Short Acting (Lasts 10-30mins)	Isosorbide Dinitrate	Nitroglycerin SL
C. Intermediate Acting (5-8hrs)	Isosorbide Dinitrate PO	Nitroglycerin -SR
D. Long Acting (5-8hrs)	Isosorbide Dinitrate -SR	Isosorbide Mononitrate
❖ Beta Blockers		
❖ Calcium Channel Blockers		
A. NON-DHP	Alternative for CSAP	++ SILDENAFIL * do not take w/ Nitrates → Lethal Hypotension
B. LONG-ACTING	Alternative for CSAP	
C. SHORT-ACTING	For Prinzmetal Angina	

DRUGS FOR HEART FAILURE			
❖ INOTROPICS	A. Inotropics	Digoxin Digitalis	Digitoxin
	B. B ₁ Agonist	Dobutamine	Dopamine
	C. PDEInhibitors	Amrinone	Milrinone
❖ UNLOADERS	A. ACE Inhibitors		
	B. Diuretics	Furosemide	
		Spirinolactone + Eplerenone	
	C. Vasodilators	ISDN + Hydralazine	
	D. Betablockers	Carvedilol	Labetalol
		Bisoprolol	Nebivolol
		Metoprolol	
	E. Brain Natriuretic Peptide Analogue	Neseritide	

ANTI-ARRHYTMIC DRUGS					
Class		Effects on AP			
I. Na Channel Blockers	A	Prolong	Procainamide	Disopyramide	“Proclamation of the Quin in the Pyramide”
			Quinidine		
	B	Shorten	Tocainide	Mexilitine	“Tomato Lettuce at Mayo Po”
			Lidocaine	Phenytoin	
	C	No effect	Moracizine	Profenone	“More Fried Please, Enrico”
			Flecainide	Encainide	
II. Beta Blockers		No effect	Propranolol	Acebutolol	Propranolol
			Esmolol	Timolol	Sotalol
III. K Channel Blocker		Prolong	Amiodarone	Ibutelide	Vernakalant
			Sotalol	Dofetilide	
			Bretylium	Dronedarone	
IV. Ca channel blockers		No effect	Verapamil	Diltizaem	
V. Miscellaneous agents			Adenosine	K ion	
			Mg ion		

VII. ENDOCRINE DRUGS

Hypothalamic Hormone	Anterior-P.H	Target Organ	Hormone
Thyrotrophin RH (TRH)	Thyrotropin (TSH)	Thyroid Gland	Thyroxine Triiodothyronine T4 & T3
Corticotropin RH (CRH)	Corticotropin/ Adrenocorticotropin (ACTH)	Adrenal Cortex	Cortisol only
Gonadotropin RH (GnRH)/ Lutenising Hormone RH (LHRH)	Gonadotropin = LH & FSH	Ovaries & Testes	Estrogen (FSH), Progesterone (LH), Testosterone (LH)
Growth Hormone RH (GHRH)	Growth Hormone (Somatotropin)	Liver	Somatomedin-C Insulin-like Growth Factor-1 (IGF-1)
Growth Hormone Inhibitory Hormone (GHIH)	Somatostatin	Liver	Somatomedin-C Insulin-like Growth Factor-1 (IGF-1)

HYPOTHALAMIC-PITUITARY HORMONE					
❖ Anterior Pituitary Hormone					
GROWTH HORMONE					
A. GH deficiency	Growth Hormone Agonist				
I. Growth Hormone	A. Cadaveric	Somatotropin			
	B. Recombinant	Somatropin	Somatrem		
II. Mecasermin					
III. Growth Hormone Releasing Hormone	Sermorelin				
B. GH excess	Growth Hormone Antagonist				
I. Growth Hormone Inhibiting Hormone	Somatostatin		III. GH receptor Antagonist	Pegvisomant	
II. Somatostatin Analogue -reotide	Ocreotide	Lanreotide	IV. Dopamine Agonist	Bromocriptine	
	Pasireotide	Vapreotide		Cabergolide	
GONADOTROPIN FSH & LH and HCG					
Gonadotropin Preparation					
I. Mixed LH & FSH	Menotropin				
II. FSH	Follitropin α & β	Urofollitropin			
III. LH	Lutropin alpha				
IV. Human Chronic Gonadotropin	hCG purified IM	rhCG subQ			
Gonadotropin-releasing hormone (GnRH) & Analogs					
GnRH Agonist -relin	A. Gonadorelin				
	B. Synthetic Analogs	Leuprolide	SQ	Nafarelin	Nasal spray
		Goserelin		Buserelin	
		Histrelin		Triptorelin	IM depot
GnRH Antagonist -relix	Ganirelix	Degarelix			
	Cetorelix	Abarelix			
❖ Posterior Pituitary Hormone					
1. Vasopressin					
A. ADH deficiency	ADH Agonist (-pressin)	Vasopressin	Desmopressin		
B. ADH excess	ADH Antagonist (-vaptan)	Conivaptan	Tolvaptan		
	Other Drugs:	Demeclocycline			
2. Oxytocin					
Oxytocin antagonist	Atosiban				

ADRENOCORTICAL HORMONES				
Zones of Adrenal Cortex		Hormones		“Go Find Rex, Make Good Sex”
Zona G lomerulosa		M ineralocorticoid		
Zona F asciculata		G lucocorticoid		
Zona R eticularis		Adrenal S ex Hormone		
I. Glucocorticoids				
A. Short-Acting To Medium (8-12)	Cortisol / Hydrocortisone		Prednisolone	
	Cortisone		Methylprednisolone	
	Prednisone			
B. Intermediate (12-36)	Fluprednisolone		Paramethasone	
	Triamcinolone			
C. Long-Acting (>36)	Betamethasone		Dexamethasone	
II. Mineralocorticoid				
A. Endogenous	Aldosterone		Desoxycorticosterone acetate	
B. Synthetic	Fludrocortisone			
III. Antagonist				
Synthetic Inhibitors	Ketoconazole	Metyrapone	Abiraterone	
	Aminoglutethimide	Trilostane	Mitotane	
Glucocorticoid Receptor Antagonist	Mifepristone			
Mineralocorticoid Receptor Antagonist	Spirinolactone		Eplerenone	
IV. Sex Hormones ++++				
Estrogen				
Natural, steroidal	Estradiol (E2)	Estriol (E3)	Estrone (E1)	
Synthethic, steroidal	Ethinyl estradiol	Mestranol	Quinestrol	
Synthethic, non steroidal	Diethylsilbestrol	Chlorotrianisene	Methallenestril	
ANTIESTROGEN				
Selective Estrogen Receptor Modulator	Tamoxifen	Raloxifene		
	Toremifene	Clomiphene		
Receptor Antagonist	Fulvestrant			
Aromatase Inhibitor	Anastrozole	Letrozole	Exemestane	
Antiprogestin	Mifepristone			
Progestin				
Natural	Progesterone			
Synthethic				
Progesterone deriv	Medroxyprogesterone acetate		Hydroxyprogesterone caproate	
	Megestrol acetate			
Testosterone deriv	Dimethisterone			
19 Nor Testosterone deriv	Levonorgestrel		Norethynodrel	
	Norethindrone		Lynesterol	
	Ethinodiol diacetate			
13 Ethyl Nor Testosterone deriv	Norgestimate		Desogestrel	
	Gestodone			
Androgens				
Testosterone	Nandrolone			
Methyltestosterone	Menotropin			
Danazol				
ANTIANDROGENS				
A. 5-Reductase Inhibitor	Finasteride		Dutasteride	
B. Receptor Antagonist	Flutamide	Bicalutamide	Spirinolactone	

→ HORMONAL CONTRACEPTIVES		
Combination Oral Contraceptives		Estrogen + Progesterone
Monophasic	Constant amount	
Biphasic	D1-D14; D15-D28	2conc. / pill
Triphasic	D1-D7; D8-D14; D15-D22	3 or more conc. / pill
Transdermal Patch	Ethinyl estradiol + Progestin	
Vaginal ring	Ethinyl estradiol + Etonogestrel	
Progestin-only pills	Ethindrone or Norgestrel “Minipill”	
Progestin implant	Norimplant 216mg of Norgestrel	
	Implanon 68mg of Etonogestrel	
Progestine Intrauterine Device	Impregnated IUD	Levorgestrel
Post-coital pills	Morning after pills	↑ dose of Progesterone
Injectable	Methoxy progesterone acetate	
Fertility Drug	Clomiphene citrate	

DRUGS FOR THYROID DISORDER			
A. TH deficiency = Hypothyroidism		THYROID PREPARATIONS	
Synthethic	Levothyroxine (LT4)	Levothyronine (LT3)	Liotrix (T4 & T3)
Animal Origin			
B. TH excess = Hyperthyroidism			
Classification	MOA	Drugs	
Thioamide	Inhibiting peroxidase (Blocks peroxidation, organification & coupling)	Propylthiouracil (PTU)	Methimazole
			Carbimazole
Inorganic anions	Inhibit Iodine uptake	Perchlorate	Thiocyanate
Iodides	<10-14 days	Lugol’s solution (Strong Iodine solution) 5% I ₂ KI, H ₂ O	Saturated solution of Potassium Iodide (SSKI)
Radiocontrast Dyes	Inhibit peripheral conversion & proteolysis	Iopanate	Ipodate
Dexamethasone	Inhibit peripheral conversion		
Beta Blocker	Control Hypersymphathetic s/sx + Inhibition of Peripheral Conversion	Propranolol	
Radioactive Iodine (I ₁₃₁)	Taken up by thyroid cells & causes destruction & oxidative damage by emission of high energy β radiation		

PANCREATIC HORMONES				
I. Insulin				
A. Ultra rapid-acting	Insulin Lispro	Insulin Aspart	Insulin Glulisine	
B. Short-acting	Regular Insulin			
C. Intermediate-acting	Isophane Insulin	Lente insulin		
D. Long-acting	Insulin Detemir	Insuline Glargine		
	Insulin Levemir	Ultra-lente insulin		
E. Mixed insulin	70-30 (NPH-Regular/Ultra-rapid acting)			
	60-40 (NPH-Regular)			
II. Insulin Secretagogues				
A. Sulfonylurea	1 st Gen “-amide”	Chlorpropamide	Acetohexamide	
		Tolbutamide	Tolazamide	
	2 nd Gen “Gly-, Gli-”	Glibenclamide	Gliclazide	Glyburide
		Glipizide	Glimepiride	
B. Meglinitide	Repaglinide	Nateglinide		
III. INSULIN SENSITIZER				
A. Biguanides	Metformin	Phenformin		
B. Thiazolidinedione	Rosiglitazone	Pioglitazone	Traglitazone	
IV. ALPHA-GLUCOSIDASE INHIBITOR		Acarbose	Liraglutide	
		Voglibose	Miglitol	
V. INCRETIN-ACTING DRUGS				
A. GLP-1 Analogue (GLUCAGON-LIKE PEPTIDE 1)		Exenatide	Liraglutide	
B. DPP-IV INHIBITOR (DIPEPTIDE PEPTIDASE IV)		Sitagliptin	Linagliptin	
		Saxagliptin		
VI. AMYLIN ANALOGUE		Pramlitide		
VII. GLUCAGON				
DRUGS FOR OSTEOPOROSIS				
1. Calcium Carbonate				
2. Biphosphonate “-dronate”	Alendronate		Ibandronate	
	Risedronate		Zoledronic acid	
3. SERM		Raloxifene		
4. Calcitonin				
5. Estrogen & Hormonal Therapy				
6. Phystoestrogen				
7. Testosterone & Anabolic Steroids		Oral Methyltestosterone	Testosterone Implants	
8. Parathyroid Hormone		Terparatide		

VIII. CNS Drugs

❖ Psychosis (Schizophrenia)		↑ Dopamine, ↑5-HT, ↑Glutamate	
ANTIPSYCHOTICS / NEUROLEPTICS / MAJOR TRANQUILIZER			
I. First Gen. / Typical / Classical / Traditional			
A. Phenothiazine “-azine”	Aliphatic “-promazine”	Chlorpromazine	
	Piperazine “phenazine”	Fluphenazine	+Prochlorperazine
		Perphenazine	+Trifluoroperazine
		Trifluphenazine	
Piperidine “-ridazine”		Mesoridazine	Thioridazine
B. Butyrphenone “-peridol”		Haloperidol	Droperidol
C. Thioxantene “-thix”		Thiothixene	
II. Atypical/Second Gen		“-zapine”, “-xapine”, “-peridone”	
Aripipazole	Paliperidone	Molindone	
Clozapine	Risperidone	Loxapine	
Olanzapine	Ziprasidone	Ziprasidone	
Quetiapine			
❖ Mood Regulation		5-HT, NE, Dopamine	
Bipolar disease	Mania + Major depression		
Cyclothymia	Hypomania + Dysthymia		
DRUGS FOR MOOD DISORDER			
A. Antidepressants			
I. Tricyclic Antidepressants -triptiline (Ami,Nor-) -pramine (Desi-,Imi-) Doxepine	Amitriptyline	+ Trimipramine	
	Nortriptyline	+ Clomipramine	
	Desipramine	+ Dosulepine / Dothiepin	
	Imipramine	+ Nortriptyline	
	Doxepine	+ Protriptyline	
II. Tetracyclic Antidepressants	Mianserin	Maprotiline	
	Amoxapine		
III. Non-Selective MAO Inhibitor	Phenelzine	Isocarboxazid	
	Tranlycypramine		
IV. Atypical Antidepressants -zodone	Trazodone	Nefazodone	
V. Selective Serotonin Reuptake Inhibitor (SSRI) Flu-Flu, Paro-Ser,CC	Fluoxetine	Fluvoxamine	
	Sertraline	Paroxetine	
	Citalopram	Escitalopram	
VI. Serotonin-Norepinephrine Reuptake Inhibitors (SNRI)	Duloxetine	Desvenlafaxine	
	Venlafaxine		
VII. Noradrenergic & Selective Serotonin Antidepressants (NASSA)	Mirtazepine	“Nasan si Mirta, pampagana pero papatulugin”	
VIII. Noradrenaline Reuptake Inhibitor (NARI)	Reboxetine		
IX. Reversible Inhibitor of MAO _A	Moclobemide		
X. NE-Dopamine Reuptake Inhibitor	Bupropion		
+ Selective Serotonin Reuptake Enhancer SSRE	Tianeptine		
B. Anti-Mania / Drugs for Bipolar Disorder			
Lithium	Carbamazepine	+ Lamotrigine	
Valproic acid	Atypical Antipsychotic Drug		
When treating:	Depression	Antidepressant + Anti Mania	
	Mania	Anti-Mania	

❖ Anxiety	Overstimulation of excitatory neurons		
Types of Anxiety Disorder	Generalized Anxiety Disorder		Post-Traumatic Stress Syndrome
	Obsessive-Compulsive Disorder		Social Phobia
	Panic Disorder		
ANXIOLYTIC / MINOR TRANQUILIZER			
1. Benzodiazepines -zepam, -zolam except CC	Chlordiazepoxide		Chlorazepate
	Short Acting MT-zolam		Midazolam Triazolam
	Intermediate-acting LTO-zepam, A-zolam		Lorazepam Oxazepam
			Temazepam Alprazolam
	Long-acting		The rest
	Without Active Metabolites “COLA”		Clonazepam Lorazepam
Oxazepam Alprazolam			
2. Barbiturates -barbital, -bital, -tal	Ultra-short acting “S, sulfur/Thio		Thipental Methohexital
			Thiamylal
	Short-acting 5-6-7 barbital		Pentobarbital Secobarbital
			Hexobarbita
	Intermediate-acting Amo-buta, intermediate, hypnotic		Amobarbital Bitabarbital
	Long-acting May Forever kay Pheno & Barbi		Phenobarbital Barbital
3. Buspirone			
4. Other Anxiolytics	Zolpidem, Zaltreonam		
5. TCA’s			
Seizure	Abnormal electrical activity in the brain; firing neurons ↓Inhibitory NT = ↑ Excitatory NT		
	Inhibitory NT	NE, Epi, Dopa, Glutamate, Aspartate	
	Excitatory NT	Glycine, GABA	
SEIZURES W/ DOCs & ALTERNATIVES			
Types of Seizure		DOC	Alternative
1. Partial / Focal Seizure	Simple	Carbamazepine Phenytoin	Lamotrigine
	Complex		Oxacarbazepine Valproic acid
2. Generalized	Generalized Tonic-Clonic (Grandmal)	Valproic acid	Topiramate Lamotrigine
	Absence (Petitmal)	Ethosuximide	Valproic acid
	Atonic	Clonazepam	Valproic acid Topiramate Lamotrigine
Myoclonic	Valproic acid		
3. Status Epilepticus		Lorazepam Clonazepam	
4. Acute		Diazepam	
ANTI-CONVULSANT +++++			
1. Cyclic Ureides	Phenytoin	Phenobarbital	Ethosuximide
2. Tricyclics	Carbamazepine		
3. Benzodiazepine	Diazepam	Lorazepam	Clonazepam
4. GABA deriv	Gabapentin	Pregabalin	Vigabatin
5. Miscellaneous	Valproic acid	Topiramate	Leveliracetam
	Divalproex Na	Tiagabine	Zonisamide
	Lamotrigine	Magnesium Sulfate	

❖ Parkinson's Dse	↓Dopamine = ↑ Acetylcholine; Progressive Movement disorder			
ANTIPARKINSONISM				
1. Levodopa + Carbidopa				
2. COMT Inhibitors	Entacapone		Tolcapone	
Ideal Triple Theory	Levodopa + Carbidopa + Entacapone			
3. D ₂ agonist	Ergot	Bromocriptine	Non-Ergot	Pramipexole
		Cabergolide		Rupinirole
		Pergolide		
4. Selective MAO _B Inhibitors	Selegiline		Rasegiline	
5. Amantadine				
6. Apomorphine				
7. Anticholinergic agents	Biperiden		Trihexyphenidyl	
	Benztropine			
DRUGS FOR OTHER MOVEMENT DISORDER				
Huntington's Disease	Tetrabenazine		Haloperidol	
	Reserpine			
Tourette's Syndrome	Clonidine		Haloperidol	

IX. ANESTHETHICS

Stages of Anesthesia	I	Analgesia		III	Anesthesia	
	II	Excitatory/Delirium		IV	Medullary Depression	
❖ General Anesthesia						
1. Inhalational anesthetics						
N	Nitrous Oxide		I	Isoflurane	M	Methoxyflurane
D	Desflurane		E	Enflurane	N	Nitrous Oxide
S	Sevoflurane		H	Halothane		
2. Intravenous Anesthetic						
Ultra-short acting BB	Thiopental		Methiohexital		Thiamylal	
Benzodiazepines	Midazolam				Triazolam	
Propofol						
Ketamine						
Opioids	Morphine		Sulfentanil		Fentanyl	
Muscle relaxant	Succinylcholine					
Combined Therapy	Droperidol + Fentanyl				Neurolept analgesia	
	Droperidol + Fentanyl + NO ₂				Neurolept anesthesia	
❖ Local Anesthesia						
Ester type	“i” Cocaine, Procaine			Amide type	“ii” Lidocaine, Prilocaine	

DRUGS OF ABUSE		
I. CNS Stimulant		
A. Xanthine	Caffeine	Theobromine
	Theophylline	
B. Nicotine	Nicotine Polacrilex gum	Bupropion
	Clonidine	Vareniclenin
C. Amphetamine	Methylphenidate	Phentermine
	Methamphetamine	Bangkok Pills
	Ecstasy	
D. Cocaine		
II. CNS Depressant	Ethanol/ Ethyl alcohol	Opioids (Heroin,Morphine)
	Benzodiazepine	
III. Hallucinogens	Phencyclidine	Marijuana
	Lysegic acid Diethylamide	

DRUGS USE TO TREAT DEPENDENCE & ADDICTION	
Opioid Antagonist	Naloxone, Naltrexone
Synthetic Opioid	Methadone
Partial-receptor agonist	Buprenorphine
N-receptor partial agonist	Varenicline
Benzodiazepine	Oxazepam, Lorazepam
NMDA receptor antagonist	Acamprosate
Cannabinoid receptor agonist	Rimonabant

X. RESPIRATORY DISORDERS

Drugs for Colds				
A. Common Colds				
Nasal Decongestants		A ₁ agonist	Phenylephrine	
Nasay Spray				
B. Allergic Colds		Antihistamine w/ Nasal Decongestant		
Drugs for Cough				
A. Mucoregulators		Ambroxol	Bromhexine	Carbocisteine
B. Mucolytic		N-acetylcysteine		
C. Expectorant		Guiafenesin (Glycerol guiacolate)		
D. Antitussive				
Peripheral-acting	Levodropropizine			
Centrally-acting	Non-narcotic		Butamirate citrate	
	Narcotic		Codeine	Dextromethorphan Noscapine
Drugs For Bronchospastic Disorders				
A. BRONCHODILATORS				
1. B ₂ Agonist	SABA			LABA
	Salbutamol/ Albuterol		Metoproterenol	Salmeterol Bambuterol
	Tertbutaline		Picoterol	Formoterol Indacaterol
B. METHYLYXANTHINE		Theophylline		Aminophylline
C. ANTICHOLINERGICS/ANTIMUSCARINIC				
Short-acting	Ipratropium			
Long-acting	Tiotropium		Glycopyrronium	
II. MAST CELL STABILIZER “-crom”				
Nedocromil		Cromolyn Sodium / Na Cromoglycate		
III. ANTI-INFLAMMATORY AGENTS				
A. LEUKOTRIENE MODIFIERS				
Lipooxygenase Inhibitor		Zilueton		
LTD ₄ Receptor Blocker		Montelukast		Zafirlukast
B. GLUCOCORTICOIDS				
Inhaled		Budesonide	Fluticasone	Triamcinolone
Systemic Oral		Prednisone	Prednisolone	Methylprednisolone
Systemic Parenteral		Hydrocortisone IV		Methylpresnisolone IV

XI. DRUGS FOR GI DISORDER

GASTROESOPHAGEAL REFLUX DISEASE			
Mild cases	▪ Lifestyle modification ▪ Over the counter antisecretory agents		
Moderate To Severe Cases	H2 blockers	Cimetidine	Famotidine
		Ranitidine	Nizatidine
	Proton pump inhibitors	Omeprazole	Pantoprazole
		Lansoprazole	Rabeprazole
PEPTIC ULCER DISEASE AND RELATED CONDITIONS			
1. Antacid	AlOH + MgOH		NaHCO ₃ + CaCO ₃ + Na alginate
	AlOH + MgOH + Dimethicone		NaHCO ₃
	AlOH + MgOH + Simethicone		
2. H ₂ Receptor Antagonist			
3. Proton Pump Inhibitor	Omeprazole	Esomeprazole	Rabeprazole
	Lansoprazole	Pantoprazole	
4. Prostaglandin	Misoprostol		
5. Mucosal Protectant	Sucralfate	Colloidal Bismuth Subcitrate	
Triple Drug Therapy vs. <i>H.pylori</i>			
<ul style="list-style-type: none">Omeprazole + Clarithromycin + Metronidazole/AmoxicillinBismuth subsalicylated + Metronidazole + TetracyclineRanitidine/Bismuth subcitrate + tetracycline + Clarithromycin + Metronidazole			
Quadruple Drug Therapy vs. <i>H.pylori</i>			
<ul style="list-style-type: none">Omeprazole + Bismuth subsalicylate + Metronidazole + Tetracycline			

DRUGS FOR DIARRHEA		
1. Oral Rehydration Salts / Oral Glucose- Electrolyte Solution		
2. Antimotility Agents	Diphenoxylate	Opium Tincture
	Loperamide	Difenoxin
	Paregoric	
3. Adsorbents	Kaolin-Pectin Tincture	Attapulgit
	Polycarbophil	
4. Antisecretory	Bismuth subsalicylate	Bacterial Replacement
	Enzymes	
5. Ocreotide		

DRUGS FOR CONSTIPATION		
1. Bulk-Forming Laxative	Fibers (fruits, vegetables)	Psyllium
	Bran Methyl Cellulose	
2. Osmotic / Saline Laxative	Lactulose	Mg OH/Citrate/SO ₄
	Sorbitol	Glycerin
	Na PO ₄	
3. Stimulant / Irritant Laxative	Bisacodyl	Sennoside
	Phenolphthalein	Casanthrol
	Cascara Sagrada	Castor oil
4. Stool Softener / Emollient Laxative	Docusate Na (Stool softener)	Mineral oil (Emollient)
	PEG	

DRUGS FOR VOMITING		
1. Dopamine Antagonist	Prochlorperazine	Promethazine
	Chlorpromazine	Metoclopramide
2. Selective Serotonin Receptor Inhibitor	Ondansetron	Dolasetron
	Granisetron	Palonosetron
3. Antihistamine-Anticholinergic Agents	Dimenhydrinate	Dimenhydrinate
	Diphenhydramine	Diphenhydramine
4. Cannabinoids	Marijuana	Dronabinol
	Nabilone	
5. Corticosteroid	Dexamethasone	
6. Benzodiazepine	Lorazepam	
7. Substance P/ Neurokinin 1 Receptor Antagonist	Aprepitant	
8. Pyridoxime		

INFLAMMATORY BOWEL DISEASE			
1. 5-aminosalicylate		3. Biological agents (TNF α inhibitor)	
2. Glucocorticoids		Adalimumab	Infliximab

ALL AROUND PHARMACEUTICALS

Gapang Pharma

X. CHEMOTHERAPEUTIC DRUGS

ONCOTIC DRUGS				
I. CYTOTOXIC AGENTS				
A. Direct DNA Interacting				
• Akylating Agents				
1. Merchlorethamine				
2. Cyclophosphamide	Ifosfamide			
3. Platinum Analogs - platin	Cisplatin	Oxiplatin	Carboplatin	
4. Nitrosureas - mustine	Lamustine	Carmustine		
5. Procarbazine	Dacarbazine			
6. Busulfan				
7. Chlorambucil				
• Topoisomerase Inhibitors				
1. Antibiotics antineoplastic - mycin	Dactinomycin	Bleomycin	Mitomycin	
2. Anthracycline derivative - rubicin	Daunorubicin	Idarubicin		
	Doxorubicin	Epirubicin		
3. Podophyllotoxin derivative - poside	Etoposide	Tenoposide		
4. Camptothecin - tecan	Irinotecan	Topotecan		
B. Indirect DNA-Interacting				
• Antimetabolites				
1. Methotrexate				
2. Antipyrimidine/ Pyrimidine Analogue	5-Fluorouracil (5-FU)			
3. Antipurine/ Purine Analogue	6-Mercaptopurine		6-Thioguanine	
• Antimitotic				
1. Taxanes - taxel	Paclitaxel	Cabazitaxel	Docetaxel	
2. Vinca alkaloids	Vincristine	Vinblastine		
II. HORMONES AND ANTAGONIST				
Adrenocortical steroid				
For ER (+) cancer	Tamoxifen			
	Aromatase Inhibitor	Anastrozole	Exemestane	Letrozole
Prostate cancer	Androgen receptor antagonist - tamide	Flutamide	Bicalutamide	
III. MISCELLANEOUS AGENT		Hydroxyurea		
Targeted therapy	1. Bevacizumab		3. - nib	
	2. Cetuximab		Sorafenib	
			Sunitinib	
		Erlotinib		Gefitinib

ANTIBIOTICS				
I. Cell Wall Synthesis Inhibitors				
A. Penicillins				
Natural Penicillins	Pen G Benzylpenicillin		Pen V Phenoxymethylpenicillin	
Beta-Lactamase resistant	Methicillins		Nafcillin	
	Cloxacillin			
Extended spectrum penicillin	Aminopenicillin	Ampicillin		
		Amoxicillin + Sulbactam		
		Bacampicillin + Clavulanic acid		
	Carboxypenicillin	Ticarcillin	Take Care of your Carbs	
		Carbenicillin		
	Ureidopenicillin	Mezlocillin	MAP of Ukraine	
		Azlocillin		
		Piperacillin		
B. Cephalosporins		Except		Coverage
1 st Gen “Ceph-”	Cefadroxil	Cefazolin	Staph, Streph	
2 nd Gen “Cef-vowel”	Cefmetazole	Loracarbef	CAP, G(+), G(-)	
	Cefprozil			
3 rd Gen “Cef-consonant”	Cefixime	Moxalactam	Cross BBB	
	Cefotaxime			
4 th Gen “pi”	Cefepime	Cefpirome	Pseudomonas, MRSA, Enterobacter	
5 th Gen “ro”	Ceftaroline	Ceftibiprole	Pseudomonas, MRSA	
C. Other Beta Lactam				
Monobactam	Aztreonam			
Carbapenem	Doripenem		Meropenem	
	Imipenem + Cilastatin		Ertapenem	
Glycopeptide antibiotics	Vancomycin		Bacitracin	
II. Protein Synthesis Inhibitors				
1. Tetracycline	Doxycycline		Tigercycline	
	Minocycline		Demeclocycline	
2. Aminoglycoside				
Streptomyces “-mycin”		Streptomycin	Tobramycin	Kanamycin
Micromonospora “-micin”		Amikacin	Netilmicin	Gentamicin
3. Macrolide	Erythromycin		Clarithromycin	Azithromycin
4. Chloramphenicol			6. Linezolid	
5. Lincosamide			7. Streptogramins	
III. Nucleic Acid Synthesis Inhibitors				
Sulfonamide	Co-trimoxazole			
Trimetophrim				
Quinolones	1 st Gen	Nalidixic acid		
	2 nd Gen CLONE	Ciprofloxacin	Ofloxacin	Enoxacin
		Lomefloxacin	Norfloxacin	
	3 rd LeGS	Levofloxacin	Gatifloxacin	Sparfloxacin
	4 th TM	Trovafloxacin	Moxifloxacin	

ANTI-TB & LEPROSY DRUGS			
Anti-TB	1 st line RIPES	Rifampicin	Ethambutol
		Isoniazid	Streptomycin
		Pyrazinamide	
	2 nd line FACLR	Flouroquinolones	Linezolid
		Aminoglycosides	Rifabutin
		Cycloserine	
Anti-Leprosy	Tuberculoid	Dapsone	6 mos.
		Rifampicin	
	Lepromatous	Rifampicin	24 mos.
		Dapsone	
		Clofazamine	

ANTIFUNGAL				
1. Polyenes	Amphotericin B			
2. Azoles	Imidazole	Ketoconazole	Miconazole	Cotrimoxazole
	Triazole	Fluconazole	Itraconazole	
		Posaconazole	Variconazole	
3. Terbinafines				
4. Echinocandins “-fungin”	Caspofungin		Micafungin	Onidulafungin
5. Flucytosine				
6. Griseofulvin				

ANTIVIRAL DRUGS			
I. Respiratory	Oseltamivir		Amantadine
	Zanamivir		Rimantadine
II. Hepatic	Interferon Alpha		Lamivudine
III. Herpes and CMV	Acyclovir		Ganciclovir
	Foscarnet		Trifluridine
IV. HIV	Nucleotide Reverse Transcriptase Inhibitors (NRTIs)	Zidovudine AZT	Lamivudine 3TC
		Stavudine d4T	Emtricitabine FTC
		Didanosine ddl	Abacavir ABC
		Tenofovir TDF	
	Non-nucleoside reverse transcriptase Inhibitors (NNRTI)	Nevirapine NVP	Etravirine ETR
		Delavirdine DLV	Rilpivirine RPV
		Efavirenz EFV	
	Protease Inhibitors	Ritonavir RTV	Nelfinavir NFV
		Saquinavir SQV	Fosamprenavir FPV
		Indinavir IDV	
	Entry Inhibitors	Enfuvirtide	Maraviroe
	Integrase Inhibitors	Raltegravir	Dolutegravir
		Elvigravir	

ANTIPROTOZOAL			
Drugs for:			
A. Amebiasis	A. Mixed Amebicide	Metronidazole	Tinidazole
	B. Luminal Amebicide	Iodoquinol	Paromycin
	C. Systemic Amebicide	Chloroquine	Dehydroemetine
B. Malaria	Primaquine	Chloroquine	Atovaquine-proguanil
	Mefloquine	Quinine	Artemisin
	Pyrimethamine		
C. Anthelmintics:	Albendazole	Mebendazole	Thiabendazole
	Diethylcarbamazine	Ivermectin	Metrifonate
	Niclosamiide	Piperazine	Praziquantel
	Pyrantel Pamoate		

Paclitaxel	Ovarian & Advanced Breast Cancer	Peklitaxel “pekpek” = ovarian
Docetaxel	Advances Breast Cancer	Docetaxel pang dodo
Etoposide	Monocytic leukemia, testicular cancer, Lung cancer	
Teniposide	Lymphoma	
Topotecan	Metastatic ovarian cancer and Cisplatin-resistant neoplasm	Topovary
Irinotecan	Colon & Rectal Cancer	Iri sa pwet
Doxorubicin	Breast, ovarian, thyroid, lung cancer & acute leukemia	Doxo for dodo rin
Daunorubicin & Idarubicin	Acute Leukemia	Down Low, Daun leu
Dactinomycin	Pediatric Sarcoma; Wilm’s Tumor	Dac=duckling=pediatric
Plicamycin	Testicular cancer, reverse cancer-associated hypercalcemia	
Mitomycin	2 nd ine agent for metastatic colon cancer	
Bleomycin	Neck, Cervical carcinoma	
Chlorambucil	Chronic Lymphocytic Leukemia	
Mercaptopurine	Childhood Acute Leukemia	MerCALtopurine

BCS CLASSIFICATION				
Class	Solubility	Permeability	DRUGS	
I	↑	↑	DVMP	Diltiazem, Verapamil, Metoprolol, Propranolol
II	↓	↑	Pheny-BINGED	Phenytoin, Bicalutamide, Ibuprofen, NSAID, Glibenclamide, Ezetamibe, DHP Ca Channel Blockers
III	↑	↓	Neo-CARE	Neomycin B, Cimetidine, Atenolol, Ranitidine, Enalaprilat
IV	↓	↓	Furo-HBC	Furosemide, Hydrochlorothiazide, Bifonazole, Cefuroxime

TOXICOLOGY

TOXICANTS AFFECT SYSTEMIC		TERATOGENIC AGENTS	
M	Methanol, Metabolic acidosis	Thalidomide	Phocomelia/Amelia
U	Uremia	Warfarin	Hypoplastic nose
D	Diabetic Ketoacidosis	Tetracycline	Teeth discoloration
P	Paraldehyde	Lithium	Ebstein anomaly
I	Iron, Isoniazid	ACEi	Renal dysgenesis
L	Lactic acidosis	DES	CC CA for cervix & vagina
E	Ethylene glycol	Methimazole	Aplasia cutis
S	Salicylates	Carbamazepine	Neural tube defect
ANS		Valproic acid	Spina bifida
Parasympathomimetics: Organophosphates		Phenytoin	Fetal Hydantoin syndrome
		Alcohol	Fetal Alcohol syndrome
D	Diarrhea	ANTIDOTES	
U	Urination	Anticholinergics	Neostigmine
M	Miosis, muscle fasciculation	Cholinesterase Inhibitors	Atropine
B	Bronchoconstriction, Bradycardia	Organophosphates	Pralidoxime
		BZD or Zolpidem	Flumazenil
E	Emesis	Carbon Monoxide	Oxygen
L	Lacrimation	Cyanide	Hydroxycobalamin
S	Salivation, Sweating	Digoxin	Digoxin antibodies
		Flouride, CCBS	Calcium
		Warfarin	Vit.K
M	Mydriasis	Heparin	Protamine sulfate
A	Agitation	Iron	Deferoxamine
T	Tachycardia	Hypoglycemics	Glucose
H	Hypertension	Beta-blockers	Glucagon
S	Seizure, sweating	Paracetamol	N-acetylcysteine
		Methanol/ Ethylene glycol	Ethanol/Fomepizole
		Opioids	Naloxone

GENERAL MANAGEMENT OF POISOINED PX					
INITIAL ASSESMENT / PRIMARY				SECONDARY SURVEY	
A	Airway			M	Medications
B	Breathing			A	Allergy
C	Circulation			P	Past Medical History/ Pregnancy
D	Degree of disability	Glasgow coma scale (15)		L	Last meal
		Eye opening	4	E	Events/ Environment related to injury
		Verbal response	5		
		Motor response	6		
E	Exposure	S	Substance	A	Acidosis (Severe)
		A	Amount	E	Electrolytes (Refractory hyperkalemia)
		T	Time		
		S	Symptoms	I	Intoxication (Salicylates, Lithium, Methanol, Ethylene Glycol)
NICOTINIC STIMULATION					
M	Muscle weakness				
A	Adrenal Medulla				
T	Tachycardia				
C	Cramps				
H	Hypertension				