

# Important key Points on Pharmacology

- ❖ Aspirin can prevent colon cancer
- ❖ Aspirin zero order kinetics
- ❖ Aspirin different uses at different doses
- ❖ Aspirin poisoning .... Salicylism
- ❖ Propionic acid derivatives .... Ibuprofen ketoprofen
- ❖ Aspirin in viral disease in children .... Reye syndrome... Fulminant hepatitis..... Use acetaminophen for fever in children
- ❖ Acetaminophen mainly blocks COX-3 in CNS..... Antipyretic and analgesic not anti-inflammatory
- ❖ Acetaminophen ...contraindicated in hepatic cirrhotic patient and alcoholic
- ❖ Strongest anti-inflammatory among NSAIDs.... Indomethacin
- ❖ Strongest analgesic among NSAIDs ...ketorolac.... Can be given parenterally
- ❖ COX-1 when inhibited chances of gastric upset increase
- ❖ Hydroxychloroquine .... Retinal damage
- ❖ In gout colchicine is a spindle poison
- ❖ Allopurinol used as adjuvant in chemotherapy to save from hyperuricemia
  - With allopurinol azathiopurine and 6-mercaptopurine are contraindicated coz their toxicity can occur coz they are metabolized by xanthine oxidase which is inhibited by allopurinol
- ❖ 2-Blood
- ❖ Only LDL increased .....>> Statins
- ❖ Only triglycerides increased ....>>>>> Fibrates
- ❖ HDL decreased VLDL increased LDL increased ..... >>Niacin
- ❖ Phytosterols increased .....>>>Ezetimibe
- ❖ Statins .... >>>>Rhabdomyolysis
- ❖ Resins...>>>> Decrease vit K absorption
- ❖ Niacin contraindicated in gout patient
- ❖ Niacin releases .... >>>>Histamine
- ❖ Fibrates .... >>>>Gall stones
- ❖ Heparin ... Activation of antithrombin III .... Fast onset used in emergency iv .... Not IM coz hematoma formation. Is there...monitored by aPTT..... Antidote protamine sulphate..... Chemical antagonism
- ❖ In pregnancy .... Heparin is safe but warfarin is teratogenic



- ❖ Warfarin for chronic use .... Oral route ... Inhibits Vitamin K epoxide reductase.... Monitored by pt....
- ❖ Antidote for chronic is vit K but for acute bleeding fresh frozen plasma
- ❖ If heparin induced thrombocytopenia ... Use direct thrombin inhibitors
- ❖ Most common adverse effects by heparin warfarin ..... Bleeding
- ❖ Platelet aggregation inhibitors useful for arterial thrombi
- ❖ Disopyramide shows coronary steal phenomenon
- ❖ Abciximab is a monoclonal antibody and irreversibly blocks IIb/IIIa receptors
- ❖ Streptokinase .... Hypersensitivity reactions Use streptokinase within 3 to 6 hours
  
- ❖ 3-Chemotherapy
  
- ❖ Drug of choice for syphilis... Benzathine penicillin G... Alternative tetracycline
  - For staph aureus sensitive ... Methicillin nafcillin oxacillin ( methicillin not because of its nephrotoxicity)
- ❖ ..... Resistant to these drugs.... MRSA... vancomycin..... Resistant to vancomycin VRSA..... Linezolid  
Drug of choice for meningitis ... Ceftriaxone
- ❖ Drug of choice for gonorrhoea .... iM ceftriaxone or cefixime oral .... Alternative is tetracycline or spectinomycin or ciprofloxacin ofloxacin
- ❖ Aztreonam only effective against gram negative aerobes
- ❖ Vancomycin effective against only gram positive organisms
- ❖ Atypical bacteria chlamydia rickettsia mycoplasma.... DOC tetracycline
- ❖ Rickettsia causes rocky mountain spotted fever ..... Tetracycline
- ❖ Don't use tetracycline with milk or antacids heavy ions bind to them
- ❖ Drug of choice for corynebacterium diphtheria..... Erythromycin
- ❖ Chloramphenicol causes .... Gray baby syndrome ( absence of glucuronyl transferase) a plastic anemia (idiosyncratic reaction)
- ❖ Clindamycin causes pseudo membranous colitis.... To treat drug of choice is metronidazole and alternative is vancomycin oral
- ❖ Aminoglycosides have oxygen dependant uptake so effective only against aerobes
- ❖ Aminoglycosides have curare like effect (neuromuscular blocking) aminoglycosides are contraindicated with loop diuretics (ototoxicity) Streptomycin .
- ❖ .. TB tularemia bubonic plague



- ❖ Doxycycline for Lyme's disease
- ❖ Sulphonamides most common adverse effect .... Hypersensitivity
- ❖ Sulphonamides can cause crytalluria ... Treated by busing excess of water
- ❖ Cotrimoxazole... Combination of sulphamethoxazole and trimethoprim.... Drug of choice for toxoplasmosis and pneumocystis carni pneumonia .... Also used for respiratory and urinary tract infections
- ❖ Drug of choice for typhoid ( salmonella) ciprofloxacin
- ❖ Respiratory floroquinolones used for pneumonia ( third generation levofloxacin)
- ❖ Cartilage abnormalities or tendon rupture by floroquinolones
- ❖ Neomycin used for preparation of gut for abdominal surgery
- ❖ Combination of drugs used in the treatment of TB ... To prevent resistance Isoniazid ... Decreases vit B6 pyridoxine..... Peripheral neuropathy
- ❖ Isoniazid and rifampin used for prophylaxis .... First choice isoniazid
- ❖ Rifampin orange red coloured body secretions
- ❖ Ethambutol .... Optic neuritis and red green color blindness
- ❖ Pyrazinamide .... Polyarthralgias
- ❖ Drug of choice for vaginal and esophageal candidiasis..... Fluconazole
- ❖ Cryptococcal meningitis ..... Fluconazole
- ❖ Amphotericin B doc for coccidioides
- ❖ Nephrotoxicity of amphotericin B can be minimized by using liposomal formulations
- ❖ For nail fungal infections (onychomycosis) drug of choice terbibafine .... Squalene epoxidase inhibitor
- ❖ For dermatophytes .... Griseofulvin..... Inhibits polymerization of microtubules
- ❖ Nystatin .... Treatment of oral or mucosal candidiasis
- ❖ Voriconazole .... Visual disturbances
- ❖ Cytomegalovirus retinitis ..... Ganciclovir
- ❖ Herpes simplex virus .... Acyclovir
- ❖ Acyclovir ..... Nephrotoxic
- ❖ Needle stick injury of aids patient .... Zidovudine
- ❖ Preg ant aids pt and to prevent vertical transmission ..... Zidovudine
- ❖ Amantadine prevent uncoating of influenza virus by acting on M2 channels ❖ For plasmodium vivax and vovale eradication ..... Primaquine ( tissue schizonticide) ❖ For pasmodium falciparum



sensitive.... Chloroquine .... For chloroquine resistant... Quinine or mefloquine..... For resistant to these drugs multi drug resistant falciparum .... Doxycycline artemether Prophylaxis .... Placiparum sensitive .... Chloroquine..... resistant .... Mefloquine.... Resistant .....

- ❖ Doxycycline
- ❖ Artemether not used for prophylaxis... Short duration
- ❖ Halofentrine not used for prophylaxis .... QT interval prolongation
- ❖ Black water fever .... Quinine
- ❖ Giardiasis amebiasis trichomoniasis pseudomembranous colitis and anaerobic bacteria.....  
Metronidazole Leshminiasis ..... Stibogluconate
  - Tape worms ... Niclosamide
- ❖ Round worms .... Albendazole
- ❖ Anticancer should be done from Kaplan
- ❖ Cyclophosphamide .... Hemorrhagic cystitis ... Use plenty of water
- ❖ Doxorubicin daunorubicin.... Cardiotoxic ❖ Bleomycin busulfan..... Pulmonary fibrosis
- ❖ Common adverse effects of anticancer drugs..... Alopecia stomatitis bone marrow suppression
- ❖ Spindle poison .... Vincristine vinblastine ( vinka alkaloids)
- ❖ Difference of cell cycle specific anticancer and cell cycle non specific anticancer should be done
- ❖ Stages of cell cycle specific drugs should be remembered
- ❖ Methotrexate toxicity minimized by leucovorin
- ❖ Cyclophosphamide toxicity minimized by mesna
  
- ❖ 4-CNS
  - ❖ Inhibitory neurotransmitter in the spinal cord .... Glycine.... Antagonized by strychnine
  - ❖ Main excitatory neurotransmitters .... Glutamate aspartate.... Act on NMDA receptors
  - ❖ Benzodiazepines increase frequency of chloride channel opening of GABA chloride channels
  - ❖ Barbiturates prolong duration of chloride channel opening of GABA chloride channels
  - ❖ Steeper the dose response curve less safer is the drug and less steeper the dose response curve more safe is the drug



- ❖ Benzodiazepines have less steep dose response curve so safer as compared to barbiturates
- ❖ Antidote for benzodiazepine poisoning is flumazenil
- ❖ Barbiturates can lead to porphyrias in susceptible patients
  - Buspirone is a 5HT<sub>3</sub> A<sub>1</sub> partial agonist..... Used for the treatment of generalized anxiety disorder
- ❖ Drug of choice for generalized anxiety disorder ..... SSRIs
- ❖ Antidote for zolpidem and zaleplon poisoning..., flumazenil
- ❖ Acute methanol poisoning leads to metabolic acidosis and retinal blindness
- ❖ Ethylene glycol poisoning leads to metabolic acidosis and nephropathy
- ❖ Both methanol and ethylene glycol poisoning have antidote.... Methanol or we can use fomepizole
- ❖ For acute ethanol poisoning ..... Maintain electrolyte give IV dextrose and vit B1 to prevent Wernicke Korsakoff's syndrome
- ❖ Ethanol withdrawal treated by correcting electrolyte imbalance iv dextrose and diazepam or methadone
- ❖ Chronic ethanol dependence can be treated by giving acamprosate naltrexone or disulfiram
- ❖ When disulfiram is given and then ethanol.... Severe headache nausea vomiting hypotension
- ❖ Disulfiram like effect.... Metronidazole griseofulvin cefotetan cefoperazone
- ❖ Partial and generalized tonic clonic seizures (grand mal epilepsy).... DOC carbamazepine or phenytoin
- ❖ Absence seizures (petit mal epilepsy)..... Ethosuximide
- ❖ Myoclonic seizures .... Valproic acid
- ❖ Febrile seizures.... Diazepam
- ❖ Status epilepticus.....diazepam fosphenytoin
- ❖ Gingival hyperplasia..... Phenytoin
- ❖ Drug of choice for trigeminal neuralgia,.... Carbamazepine
- ❖ Gabapentin can be used for post herpetic neuralgia
- ❖ MAC values of inhalational anesthetics show potency of drug .... Higher MAC lower potency .... Nitrous oxide high MAC less potent halothane low MAC more potent
- ❖ Blood gas partition coefficient shows rate of onset and recovery.... Lower coefficient faster onset and recovery and vice versa..... Halothane high value and nitrous oxide

- lower value of blood gas partition coefficient..... Fast onset and recovery for nitrous oxide
- ❖ Good analgesic but poor anesthetic..... Nitrous oxide
- ❖ Halothane can lead to hepatitis and malignant hyperthermia
- ❖ Desflurane causes bronchoconstriction by having irritant effect on respiratory tract
- ❖ Good anesthetic and poor analgesic.... Thiopentone
- ❖ Action of thiopentone finished when ..... Redistribution of drug
- ❖ Ketamine .... Dissociative anesthetic ..., Antagonizes NMDA receptors..... Can cause hallucinations during recovery and can sensitize myocardium to catecholamines
- ❖ Fentanyl opioid analgesic .... Adverse effect chest wall rigidity
- ❖ Fentanyl used for cardiothoracic surgeries
- ❖ Neuroleptic anesthesia..... Analgesia acquired when combination of fentanyl droperidol and nitrous oxide is given
- ❖ Neuroleptic analgesia .... Combination of fentanyl and droperidol
- ❖ Anesthetic which doesn't need antiemetic to prevent post anesthesia is ..... Propofol..... Faster induction and recovery.....used for day surgeries
- ❖ Local anesthetics cannot act in infection site coz of formation of charged drug which cannot enter the cell
- ❖ Local anesthetics accompanied by epinephrine or alpha agonist..... To decrease systemic effects and to decrease required dose
- ❖ Fibres anesthetized on this manner.... Type C followed by B And then type A .... Recovery in opposite direction
- ❖ Pain fibers are first to get anesthetized
- ❖ Patient reached to surgical anesthesia state or not is checked by absence of eyelash reflex
- ❖ Skeletal muscle relaxants tubocurarine .... Histamine release
- ❖ Mivacurium short acting
- ❖ Antidote for these non depolarizing muscle relaxants (curare) ..... Neostigmine
- ❖ When skeletal muscle relaxation starts it starts with smaller muscles like that of extraocular and diaphragm is the last one to get paralyzed and recovery is in reverse manner Drug used for the treatment of malignant hyperthermia.... Dantrolene
- ❖ Rationale of Combination of levodopa with carbidopa..... Decreased systemic side effects and decreased dose required
- ❖ Drugs which are dopaminergic agonists can lead to drug induced psychosis



- ❖ Bromocriptine is a dopamine agonist .. Used for parkinsonism as well as hyperprolactinemia treatment
- ❖ Bromocriptine causes erythromelalgia
- ❖ Amantadine causes livedoreticularis
- ❖ Anticholinergic drugs cannot improve bradykinesia
- ❖ Antipsychotic drugs .... Positive symptoms ....typical antipsychotic
- ❖ Negative symptoms..... Atypical antipsychotic
- ❖ Extra pyramidal symptoms are reversible and treated by giving antimuscarinic drugs..... Drug induced parkinsonism
- ❖ Tardive dyskinesia by antipsychotic drugs.... Irreversible ..... Can prevent further progression by shifting
- ❖ from typical to atypical antipsychotic ..... Anticholinergic drugs will aggravate the condition
- ❖ Antipsychotic drugs cause ..... Hyperprolactinemia
- ❖ Haloperidol... Neuroleptic malignant syndrome
- ❖ Thioridazine... Retinal deposits
- ❖ Ziprasidone increase Qt interval
- ❖ Clozapine ..... Agranulocytosis.... Monitored by regular CBC
- ❖ Morphine used for pulmonary edema and crushing pain of MI
- ❖ All effects of opioid analgesics show dependence except constipation and miosis
- ❖ All opioid analgesics do miosis except meperidine which causes mydriasis
- ❖ When written in scenario pinpoint pupil it means it is opioid overdose
- ❖ Drug of choice for acute opioid overdose .... Naloxone
- ❖ Dextromethorphan and codeine used for cough
- ❖ Loperamide and diphenoxylate used for diarrhea
- ❖ TCAs ... Imipramine also used for urinary urgency
- ❖ Clomipramine used for obsessive compulsive disorder but drug of choice is SSRIs Duloxetine for chronic neuropathic pains
- ❖ Hypertensive emergency when combination of MAO inhibitors and TCAs Serotonin syndrome when combination of MAOs with SSRIs
- ❖ SSRIs.... Sexual dysfunction sleep disorders seizures (fluoxetine) serotonin syndrome Fluoxetine has major drug drug interactions so not used in combination of drugs



## ❖ 5-General Pharma

- ❖ What the body does to the drug... Pharmacokinetics..... Absorption distribution metabolism excretion What the drug does to the body .... Pharmacodynamics.... Mechanism of action pharmacological effects clinical uses adverse effects
- ❖ Study of dosages of drugs..... Posology
- ❖ Atropine from atropabeladona ... Morphine from opium... Digitalis from fox glove ❖ Chemical constituent of the drug which is the reason for its therapeutic effect .... Active principle
- ❖ Active principle plus excipient.... Drug
- ❖ No active principle just excipients..... Placebo dummy drug
- ❖ Alkaloids... Nitrogenous bases bitter in taste sparingly soluble in water have prefix ine morphine nictonine lobeline
- ❖ Tertiary alkaloids... Uncharged.... Lipid soluble ...can enter CNS .... Physostigmine
- ❖ Quaternary alkaloids... Charged...water soluble... Can't cross blood brain barrier
- ❖ Glycoside composed of sugar and non sugar part.... Active component non sugar part genin which is steroid nucleus ... Cardiac glycoside digitalis
- ❖ First pass metabolism.... Presystemic metabolism of administered drug.....
  - Propranolol lidocaine nitroglycerine extensive first pass metabolism..... Sites gut wall and liver..... Decreases bioavailability of drugs
- ❖ Unchanged fraction or percentage of administered drug that reaches systemic circulation is .....
- ❖ Bioavailability ..... Bioavailability for IV route is 1 or 100%
- ❖ Longest duration of action ..... Intradermal route
  - Movement of drug or processes involved in movement of drug from site of administration to systemic
- ❖ circulation..... Absorption .... Factors are very imp.... Most imp effect of pH
- ❖ Acidic drugs absorbed from acidic medium and basic drugs from alkaline medium....
- ❖ Henderson hesalbach equation
- ❖ When  $pH = pKa$  50% ionized 50 % unionized drug
- ❖ Outcomes of metabolism..... Active to inactive drug...lipid soluble to water soluble .. Inactive to active prodrug..... Active to another active metabolite



- ❖ Phase I oxidation reduction hydrolysis
- ❖ Oxidation microsomal enzyme dependant or non microsomal
- ❖ Microsomal enzymes in smooth endoplasmic reticulum . enzyme induction .. Smooth endoplasmic reticulum enlarged
- ❖ Non microsomal enzymes in mitochondria
- ❖ phase II conjugation reactions
- ❖ Enzyme inducers .... Rifampin pheytoin carbamazepine phenobarbitone ❖ Enzyme inhibitors.. . cimetidine ketoconazole valproic acid grape fruit juice
- ❖ When toxicity of acidic drug .... Urinary excretion increased by alkalinizing the urine by sodium bicarbonate
- ❖ When toxicity by basic drug ..... Acidify urine giving ammonium chloride ❖ Loading dose dependant on  $V_d$  and maintenance dose dependant on Clearance
- ❖ Half life determines two parameters ... Time to reach steady state conc and dosage interval
- ❖ Steady state conc reached after 5 half lives
- ❖ Parameters obtained from graded dose response curve.....  $EC_{50}$ .. Maximal efficacy...  $K_d$ .... Selectivity of drugs
- ❖  $EC_{50}$  parameter of potency of drug
- ❖ Parameters obtained from quantal dose response curve....  $ED_{50}$ ..  $LD_{50}$ ...TD
  - 50....therapeutic index therapeutic window
- ❖  $ED_{50}$  parameter of potency
- ❖ Rest parameter of safety of drug



- In the presence of competitive antagonist on graded dose response curve .... Shift towards right
- maximal efficacy remains same EC50 increased potency decreased
- Shift towards left is by potentiation
- Kd more than EC 50 spare receptors present

#### ❖ 6-Endo

- ❖ Type 1 diabetes mellitus ...drug of choice insulin
- ❖ Type 2 diabetes ,,..... Drug of choice oral antidiabetic drugs
- ❖ Pregnant diabetic patient we can give insulin
- ❖ Insulin glargine has no peak
- ❖ Most common adverse effect of insulin therapy is hypoglycemia
- ❖ Obese patient with type 2 diabetes drug of choice ..... Metformin
- ❖ Metformin in renal compromised pts can do lactic acidosis
- ❖ Oral antidiabetic drug group with major adverse effect hypoglycemia.... Sulfonylureas
- ❖ Antidiabetic drugs acting on nuclear level or involved in formation of new proteins for metabolism....
- ❖ Thiazolidine diones
- ❖ Oral antidiabetic which causes flatulence abdominal discomfort... Acarbose
- ❖ If acarbose given then in case of hypoglycemia sugar will not be effective rather monosacchride should be given
- ❖ Antidote for beta blocker poisoning..... Glucagon
- ❖ Anti thyroid drug for chronic thyrotoxicosis .. Thioamides
- ❖ Thioamide safe in pregnancy..... Propylthiouracil
- ❖ Antithyroid drug useful in acute thyrotoxicosis (thyroid storm )..... Iodide propranolol
- ❖ Drug which reduces size and vascularity of thyroid gland.... Iodide
- ❖ Drug used for permanent cure of thyrotoxicosis without surgery..... Radioactive iodine
  - Leuprolide used to treat infertility when given in pulsatile manner
- ❖ Beta HCG agonist agonist like LH

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- ❖ Drug used for pituitary tumors ..... Octeriotide
- ❖ Most potent corticosteroid .. Dexamethasone
- ❖ In case of replacement therapy for adrenal gland problems .... Combination of corticosteroid and mineralocorticoid
- ❖ Clomiphine inhibits estrogen receptors in the pituitary gland
- ❖ Diethylstilbestrol cause vaginal adenocarcinoma in the daughter of the mother using it
- ❖ Finastride is 5 alpha reductase inhibitor ❖ Ketoconazole inhibits synthesis of steroids
- ❖ Most common adverse effect of bisphosphonates is oesophagitis and can be prevented by asking pt to use more water

#### ❖ 7-Smooth Muscle

- ❖ Acute attack of asthma.... Short acting beta 2 agonist inhalational route plus we can also give inhalational steroid
- ❖ Chronic asthma..... Give salmeterol or formetrol (long acting beta 2 agonist) for bronchodilation and inhalational steroids also for prophylaxis
- ❖ Surface acting steroids like beclomethasone are give through inhalational route
- ❖ Beta 2 agonists are not preferred in cardiac patients rather we prefer antimuscarinic ipratropium
- ❖ Drug of choice for COPD is ipratropium or tiotropium
- ❖ If attacks of asthma more than 3 times or 3 times a week then go for inhalational steroids
- ❖ If inhalational steroids cause oral candidiasis we can prevent it by using either spacer device or rinsing mouth with water after every puff Nocturnal asthma..... Theophylline
  - Status asthmaticus.... Manage pt with giving oxygen maintaining vital and beta 2 agonist inhalational and prednisolone (corticosteroid) intravenous

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- Food allergy hay fever ..... Cromolyn nedocromil
- Exercise induced asthma ..... Prophylaxis..... Zileuton montelukast zafirlukast Zileuton...

Raised liver enzymes

- ❖ Montelukast zafirlukast..... Churg Strauss's syndrome, granulomatous angitis
- ❖ Aspirin induced asthma cpz of movement of all arachidonic acid to lipoxygenase pathway
- ❖ Anti tussives and drugs used for productive cough just classification with 2 examples each from multi author Cheema zarur kar lain
- ❖ Preferred opioid analgesics as antitussives ( drugs used for dry cough) are codeine and dextromethorphan
- ❖ Opioid analgesics preferred as antidiarrheal are loperamide and diphenoxylate
- ❖ Diphenoxylate used in combination with atropine to prevent abuse of diphenoxylate
- ❖ Travellers diarrhea ..... Bismuth subsalicylate drug
- ❖ Pseudomembranous colitis drug of choice ..... Metronidazole and alternative ❖ 8-GIT
  
- ❖ Aluminium hydroxide causes constipation and magnesium hydroxide causes diarrhea. Some times question comes why we use combination..... to neutralize each others effect.
- ❖ Hypylori induced peptic ulcer ..... Triple regimen .....PPI amoxicillin and clarithromycin or quadruple regimen..... PPI bismuthsubsalicylate metronidazole and tetracycline
- ❖ Ppi absorbed from gut and 24 hour duration of action irreversibly block proton pump or hydrogen potassium ATPase pump
- ❖ Most effective in peptic ulcers..... Ppi
- ❖ If pt is prone to have peptic ulcer we don't use non selective nsaid..... either answer is cox 2 selective inhibitor celecoxib or non selective nsaid with misoprostol (prostaglandin)

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- Long standing diabetes pt and bloating or distension with after food .....
- Gastroparesis ( paralysis of gut)..... Drug of choice ...metoclopramide
- Very potent enzyme inhibitor among H2 blockers .... Cimetidine
- Cisplatin induced vomiting..... Ondansetron
- Chemotherapy induced vomiting should be done also from Lippincott

- ❖ Portal hypertension... Prophylaxis by beta blocker
- ❖ Portal hypertension and rupture ,.... Treatment octreotide
- ❖ Sucralfate is a mucosal protective agent
- ❖ Pirenzepine is an m1 selective antagonist
  
- ❖ 9-CVS
  
- ❖ Diuretic used for glaucoma and acute mountain sickness.... Acetazolamide
- ❖ Diuretic of choice in metabolic alkalosis .... Acetazolamide
- ❖ Diuretic contraindicated in hepatic cirrhosis..... Acetazolamide
- ❖ Diuretic which increases chances of calcium stones..... Acetazolamide
- ❖ Diuretic of choice for pulmonary edema.... Loop diuretic furosimide
- ❖ Other drug which can be used for pulmonary odema .... Morphine
- ❖ Diuretic used to treat hypoalbuminemia... Loop diuretics
- ❖ All loop diuretics are sulphonamides except... Ethacrynic acid
- ❖ Loop diuretics are contraindicated with aminoglycosides coz..... Otorotoxicity by both drugs
- ❖ Loop diuretics contraindicated with digoxin.... Hypokalemia
- ❖ Thiazide diuretics... Used to treat idiopathic hypocalcemia
- ❖ Diuretic contraindicated in gout..... Thiazide diuretics
- ❖ Thiazide diuretics contraindicated with digoxin.... Hypokalemia
- ❖ Diuretic indicated in hepatic cirrhosis..... Spironolactone
- ❖ Gynaecomastia and androgenic disorders caused by spironolactone



- ❖ Diuretic contraindicated with ACE inhibitors or ARBS .... Potassium sparing diuretics Drug of choice for treatment of raised intracranial pressure or intracranial hemorrhage ..... Mannitol
  - Drug contraindicated in head injury or raised intracranial pressure.....morphine
  - Diuretic used to treat conditions in which high urine flow is required..... MannitolPregnancy moderate hypertension..... Methyldopa
- ❖ Pregnancy hypertensive emergency..... Hydralazine
- ❖ Hypertensive emergency..... Nitroprusside
- ❖ Diabetes and hypertension .... ACE inhibitors or ARBS
- ❖ Contraindications of ACE inhibitors or ARBs ..... Pregnancy, renal artery stenosis or renal vascular disease, potassium sparing diuretics
- ❖ Diuretic contraindicated with ACE inhibitors or ARBs .... Potassium sparing ❖ SLE caused by .... Hydralazine
- ❖ Hirsutism which can be used for male pattern baldness is caused by minoxidil
- ❖ Nitroprusside causes ..... Cyanide toxicity
- ❖ Drugs contraindicated in vasospastic angina.... Beta blockers
- ❖ Most important factor in oxygen consumption of myocardial cells is .... Myocardial fibre tension
- ❖ Which of the following drugs doesn't decrease mortality rate in heart failure..... Digoxin
- ❖ Drugs contraindicated with digoxin.... Quinidine verapamil loop diuretics and thiazide diuretics  
Which diuretics contraindicated with digoxin.... Loop and thiazide coz they cause hypokalemia
- ❖ Which electrolyte imbalance causes digoxin toxicity.... Hypokalemia, hypomagnesimia, hypercalcemia Digoxin induced arrhythmias are because of..... Increased calcium in the sarcoplasm...and drug for it's treatment is lidocaine or phenytoin
- ❖ Digoxin chronic poisoning .... Go for electrolyte improvement mostly potassium
- ❖ If acute digoxin poisoning .... Go for digibind fab fragment digoxin antibodies
- ❖ Digoxin increase PR interval on ECG
- ❖ Beta blockers are contraindicated in acute heart failure
- ❖ Calcium channel blockers are contraindicated in acute and chronic heart failure Calcium channel blocker used in hemorrhagic stroke is nimodipine
- ❖ Antiarrhythmic causing thrombocytopenia or cinchonism is quinidine
- ❖ Quinidine causes QT interval prolongation
- ❖ Which antiarrhythmic causes SLE..... Procainamide
- ❖ Drug of choice for ventricular arrhythmias.... Lidocaine

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- ❖ Drug used for the treatment of post MI ventricular arrhythmias..... Lidocaine
- ❖ Drug used for the prophylaxis of post MI arrhythmias..... Beta blockers except esmolol coz of its short half life
- ❖ Antiarrhythmic for refractive arrhythmias... Amiodarone
- ❖ Drug which has thyroid abnormalities or corneal deposits or pulmonary fibrosis.... Amiodarone
- ❖ Drug of choice for av nodal arrhythmias calcium channel blockers
- ❖ Drug of choice for supraventricular arrhythmias.... Betablockers or calcium channel blockers Drug of choice for paroxysmal supra ventricular tachycardia PSVT is..... Adenosine and if its not the option then esmolol.
- ❖ For acute supraventricular arrhythmia..... Adenosine or esmolol
- ❖ Atrial flutter or fibrillation..... Digoxin
- ❖ Xanthopsia or yellow hallos ..... Digoxin
  
- ❖ 10-ANS
  
- ❖ Drug used for diagnosis of Myasthenia gravis .... Edrophonium
- ❖ Drugs used to diff between Myasthenic crisis and cholinergic crisis ... Edrophonium Drug used to treat Myasthenia gravis..... Neostigmine.
- ❖ Drug of choice for treatment of Xerostomia or sjogerns syndrome ..... Pilocarpine
- ❖ Antidote of organophosphate .... Atropine
- ❖ Antidote of atropine poisoning .... Physostigmine
- ❖ Antidote of non depolarizing skeletal muscle relaxant..... Neostigmine
- ❖ Contraindications of atropine .... Glaucoma, bph, children hyperthermia
- ❖ Drug of choice for motion sickness .... Hyoscine or scopolamine

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  - Duration of action of atropine in eye.... 72 hrs
- ❖ Drug of choice for anaphylactic shock.... Epinephrine
- ❖ Tachyphylaxis shown by amphetamine and ephedrine
- ❖ Drug of choice for pheochromocytoma .... Phenoxybenzamine
- ❖ Non selective alpha beta blockers ..... Labetolol carvedilol
- ❖ Betablockers used in chronic heart failure .... MCB metoprolol, carvedilol, bisoprolol ❖  
Yohimbine used for erectile dysfunction
- ❖ Mydriasis with cycloplegia..... Atropine or parasympatholytics Mydriasis with no cycloplegia ....  
Sympathomimetics
- ❖ Patent ductus arteriosus ... To maintain it use misoprostol...
- ❖ To close it indomethacin
- ❖ Latanoprost ... Used in glaucoma
- ❖ Misoprostol in abortifacient
- ❖ Misoprostol mucosal protective agent
- ❖ Carboprost ... PGF2 alpha... For abortion
- ❖ Prostacyclin for pulmonary htn and in dialysis to prevent aggregation of platelets
- ❖ Aspirin ..... Irreversibly block cox I and II
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## MERO HEALTHLINE