

Pharma (drug).

- L(5)** • Quaternary ammonium (poor absorption) ⁽⁺⁾
 • Streptomycin ^(Alkline) plat (always ionized not only).

Acid drug (Asprin & pheno barbitel)

Basic drug (amphetamine).

Nitroglycerin & propranolol (Hepatic 1st pass)
 Estrogens (intestinal 1st pass effect).
 nicotine (pulmonary metabolism).

L(6)

drug cross in VC just (Heprin).

" " " " & interstitial (neostigmine).

" " " " " & cells. (barbiturates)

Drug can cross to the BBB if the
 Brain meningitis • penicillin & cephalosporins.

Drug Redistribution (thiopental).

Drug Bind to tissue $\xrightarrow{\text{Liver}}$ chloroquine

Asprin & warfarin $\xrightarrow{\text{Liver}}$ Iodides

L7

- drug convert from inactive \rightarrow Active
(enalapril \rightarrow enalaprilat)
- active \rightarrow more active
codeine \rightarrow morphine
- active \rightarrow toxic
(Halothane & Paracetamol).
- endogenous substrate
 - ① glucuronic acid
 - ② sulfate
 - ③ glutathione amino Acid.
 - ④ acetate

سوال
(10)

Enzyme induction. • phenobarbitone

- phenytoin • nicotine • rifampicin
- carbamazepine

\rightarrow Responsible
to metabolize
of warfarin.

Enzyme inhibition.

- Erythromycin • Clarithromycin
- Cimetidine • Contraceptive pills.

(L8)

Drug Bind to acid carrier (penicillin & probenecid)
Salicylic Acid)

" " " Alkline carrier (amphetamine
& quinine.)

• Some drug excretion in

- ① Bile e.g (Doxycycline & azithromycin)
- ② Lung (Volatile anesthetics)
- ③ Saliva (Iodides)
- ④ Sweet (Rifampicin)
- ⑤ milk → imparts in breast milk.

Drug have Short $t_{1/2}$ (dopamin)
Long $t_{1/2}$ (digoxin).

Drug eliminated by Zero order kinetics
(Salicylate & phenytoin).

important drug (med exam).

L1

(organic soures)

(atropin/morphine/caffein/theophyllin
quinine).

drug from plant (alkaloids & steroids & some vitamin
& annins & volatile oil & gums).

drug from Animal (protine & oils & enzyme from ^{exerin gland}
hormones, vaccines & anti sera and some vitamin).

drug from microbes (antiBody).

antiserum

Non organic soures → metal (Zinc/platinum)
→ Non metal (NaCl / MgSO₄)

Chemical Name

- acetylsalicylic acid (Asprin)
- acetaminophen (paracetamol)

Generic name:

- Noradrenalin & Adren UK
- Amoxicilline (moxicare/moxivel
moxacil) • Nor epinefrin & epin UK USA
- Salbutamol UK
- ciprofloxacin (ciprodax/ciproxin
ciplox) • albutrol USA.

Commercial name:

Diclofenac Na

not used in US

(Voltaren & Inflamm & Diclogesic)

(Tablets & Capsules) → Result

olol → β -Blocker

(Aerosol & Inhaler) → Dose
more specific.

cain → local anesthetic

L2

drug that make physical Action

- mannitol as diuretic
- Radio-isotopes

drug that make chemical Action

- Gastric antacids
- chelating agents

most of the drug Bind to the Receptor.

drug Inverse agonists. (anti Histamin when Bind to H_1 Receptor or H_2).

antagonist

Isoproterenol	← agonist	Epinephrin	→ antagonist	propranolol
• important therapy in asthma		Bind to the β -Blocker		• Contract Heart beat (β -Blocker)
		• ↑ heart Rate		
		• ↑ Bronchial Relaxation		

drug Bind covalt with Receptor : Organophosphorus.

Hydrophobic → (Highly Lipid - Soluble drug). the Receptor found interna

water Bond → more selective

transmembran ligand-gated ion channels. (neurotransmission, cardiac conduction and muscle contraction).

Enzyme linked Receptors (intra or extra cellular).

- insulin
- growth factor like EGF & PDGF
- immune cytokines

intracellular receptor:

- Located in cytoplasm (steroid resp)
- Located in Nucleus (thyroid hormone & vitamin D₃)