

* Summary of Lectur "1"

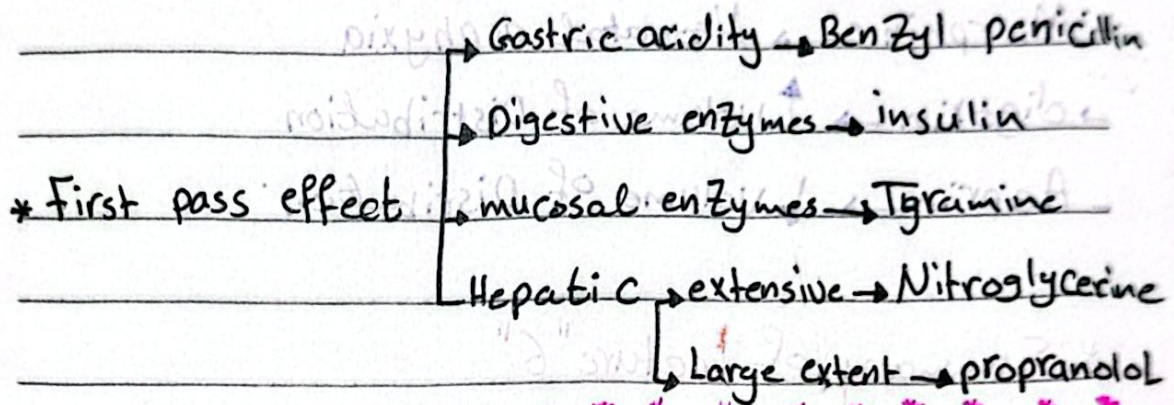
- Atropin → source from plant "Belladonna"
- Heparin → Source from Animals "Cow"
- penicillin → Penicillium Fungi
- Aspirin → Sulfonamid → synthetic
- Human insulin → Genetic Engineering.

* Summary of Lectur "2"

- Barium chloride (BaCl_2) → not Absorbed
- Quaternary ammonium → Ionized → poor Absorption
(Neostigmine)
- Tertiary amines → Non Ionized → Better Absorption
(physostigmine)
- Aspirin → weak acid
- Amphetamin → weak Base
- Ferrous (Fe^{+2}) > Ferric (Fe^{+3}) → Absorption
- paracetamol → Rapid disintegration and dissolution
- digoxin → slow disintegration and dissolution

* Summary of Lecture "3"

- Adrenaline → V.C
- prokinetic → metoclopramide
- Grape fruit juice → inhibition of p.glycoprotein
- Tea → ↓ Absorption of iron by its content of tannic acid



* Summary of Lecture "4"

- one Comp mode (↑ MW) → Dextran (↑ MW)
- warfarin (Bound to p.p. ↑ MW)
- Heparin (↑ MW)

- Two comp mode (↓ MW, ↓ lipid sol) → Quaternary ammonium
- Multi Comp mode (↓ MW, ↑ lipid sol) → Alcohol, phenytoin

* Iodine → in thyroid (special Affinity)

* Thiopentone → in fat.

* Tetracycline → Bone and teeth.

* Aminoglycosides → Kidney and vestibular systems.

- Neomycin - Gentamicin - streptomycin

* Summary of Lecture "5"

- Aspirin (salicylates)
 - Sulphonamides
- ↑ Bound to Plasma protein
- penicillin → Antibiotic so treat meningitis
 - Tetracycline → Teratogenicity
 - Morphine → Neonatal asphyxia
 - digoxin → ↑ Volume of Distribution
 - Aspirin → ↓ Volume of Distribution

* Summary of Lecture "6"

* Bio transformation

- Nicotine → Lung
 - Vit. D → Kidney
 - Histamine → Gut flora
 - Vit. D → Skin
 - succinylcholine → Plasma
- ### - phase "I"
- Cortisone (in. Active) → Cortisol (Active)
 - Diazepam (Active) → Nor-Diazepam (Active)
 - Adrenaline (Active) → Vanil mandilic acid (inActive)
 - Acetylcholine (Active) → Acetic Acid + Choline (inActive)
 - Methanol (Active) → formaldehyde (toxic)
(Blindness)

Phase "II" :

- paracetamol + glucuronic acid
- Isoniazid + acetic acid.
- Salicylates + glycine.
- Noradrenaline + methyl group (Active Adrenalin)

- Factors affecting Drug Biotransformation :

Chloramphenicol → Fatal Grey Baby Syndrome

- Activators to HME :

- 1- Rifampicin
- 2- phenobarbitone
- 3- phenytoin
- 4- Carbamazepine

- Drug ↓ Hepatic Blood flow → propranolol.

Summary of Lecture "7" (Kidney)

- Glomerular filtration → Mannitol (free, water sol) MW < 500
- Active renal secretion → penicillin, digoxin
- probenecid compet with penicillin
- Atenolol → little or no metabolism (The clearance of this drug depend on renal excretion)
- other routes of excretion:
 - Halothane (Local insthesia) → Lung
 - Skin gland → sweat (Rifampicin), mamary (Basic drug, lipid sol drug)
 - Salivary → Iodid, morphine
 - Stomach → morphine
 - Colon → unabsorbed drug (streptomycin), Entro-Hepatic Circulation (Rifampicin, Colchicine), treatment of cholecystist (Ampicillin)
- Reserpine → High Biological $t_{1/2}$

Summary of Lecture "8"

- first kinetic → small dose of Aspirin + phenytoin
- zero kinetic → large dose of Aspirin + phenytoin
- phenytoin + theophylline (Narrow therapeutic dose).