

SEDATIVE – HYPNOTIC

SEDATIVE – is a drug that produces calming and quietening effect and reduce excitement. It may induce drowsiness.

- Drugs that calm the patient and reduce anxiety without inducing normal sleep.

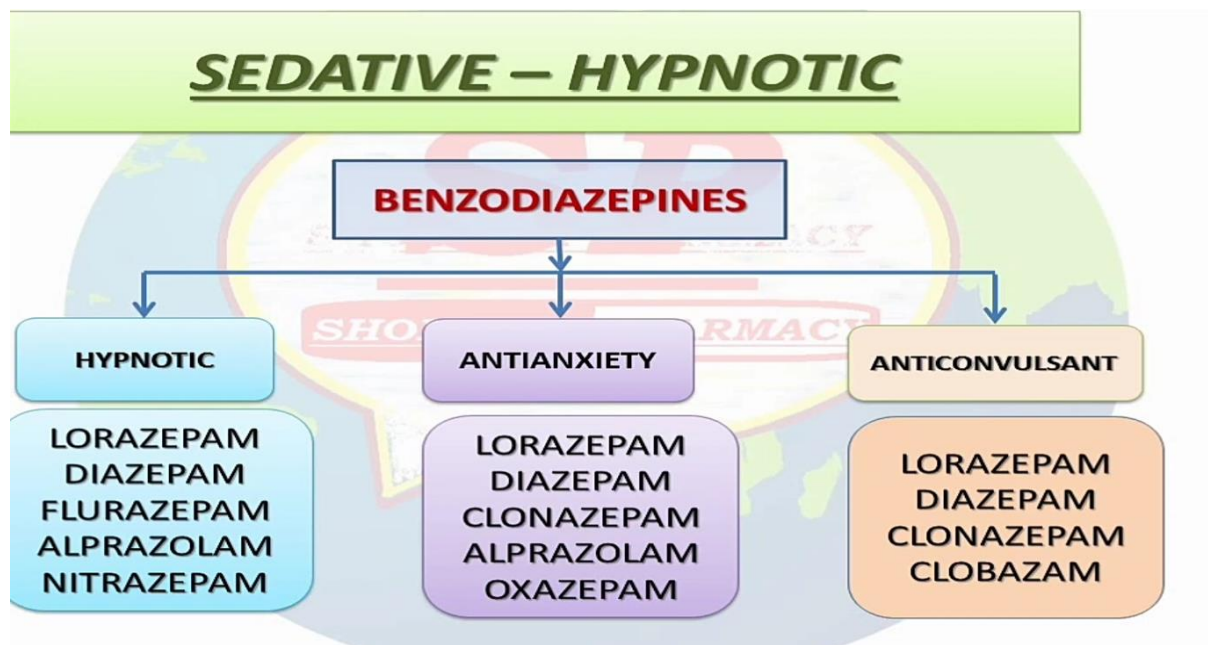
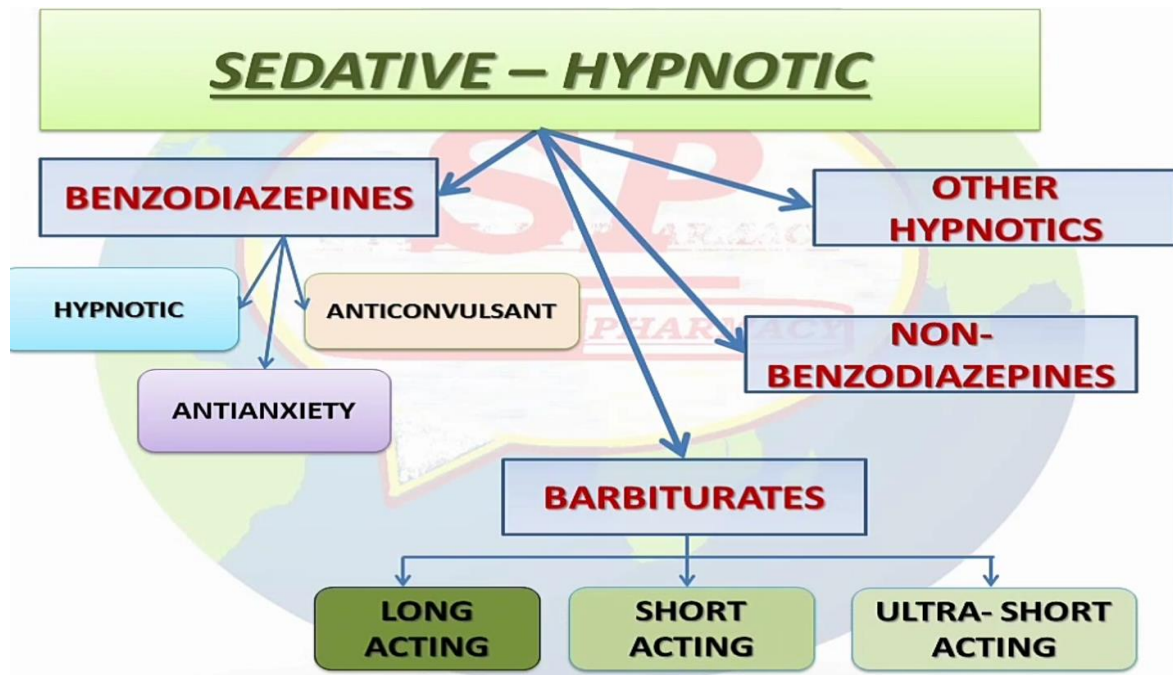
HYPNOTIC – is a drug that induces sleep resembles natural sleep

- Drugs that initiate and maintain the normal sleep

Stage of NREM Sleep-

- ① Stage-0 = From lying down to falling asleep.
- ② Stage-1 = ① Eye movement ↓ ② Body muscle = **Relax** (5-10% total sleep time)
- ③ Stage-2 = ① More ↓ in eye movement ② person may Arousable (50%)
- ④ Stage-3 = ① Deeper sleep with min eye movement ② Not easily Arousable
- ⑤ Stage-4 = ① Deepest level of sleep. ② Metabolic rate is - **Lowest**
③ Growth hormone secretion is - **Highest**.
④ **No** eye movement ⑤ Muscle are fully relaxed.
⑤ If awakened = **Disorientation** for - 01-02 Mnts. (20%)

* **REM Sleep** - Associated with - ① Dreaming ② Enhanced heart rate
Breathing & Brain activity
③ Relaxation of voluntary muscle.
"Dream can be recalled"



SEDATIVE – HYPNOTIC

BARBITURATES

LONG
ACTING

PHENOBARBITONE

SHORT
ACTING

BUTOBARBITONE
PHENOBARBITONE

ULTRA- SHORT
ACTING

THIOPENTONE
METHOHEXITONE

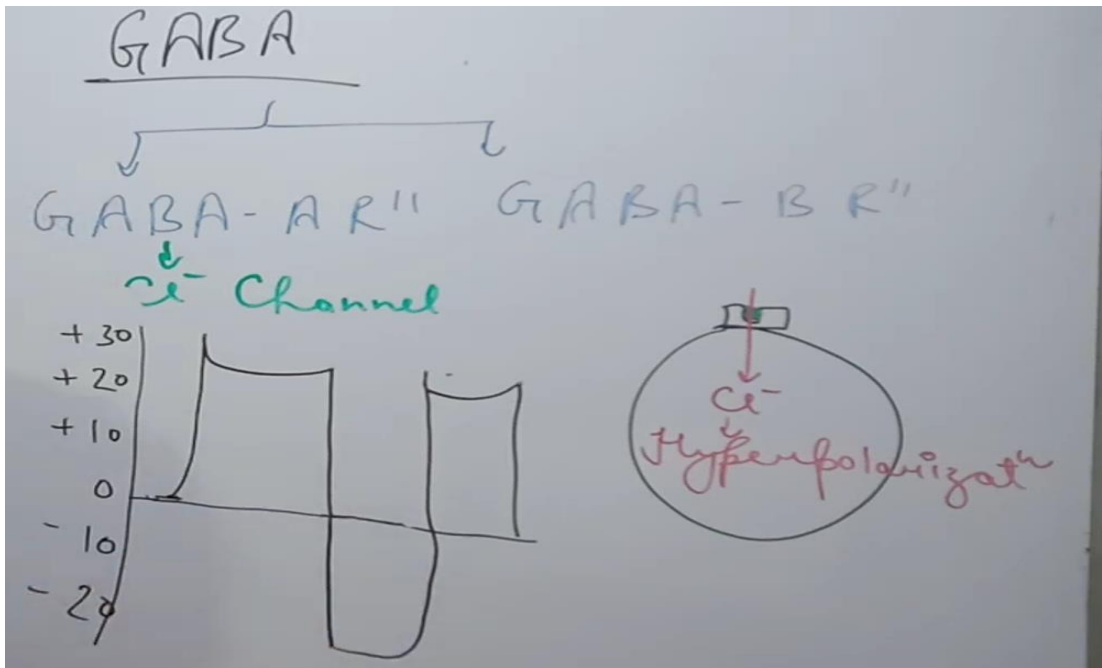
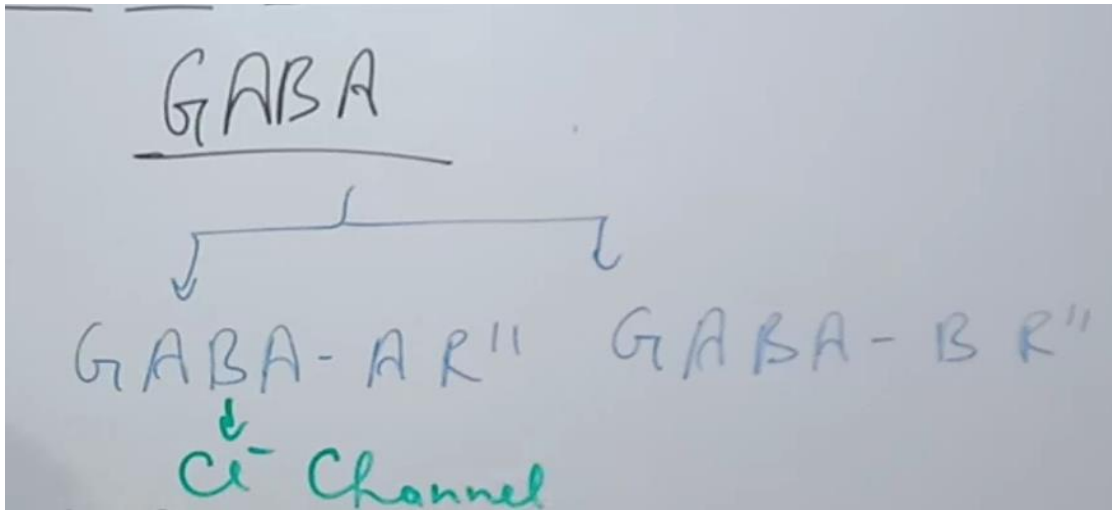
SEDATIVE – HYPNOTIC

NON-
BENZODIAZEPINES

ZOPICLONE
ZOLPIDEM
ESZOPICLONE
ETIZOLAM

OTHER
HYPNOTICS

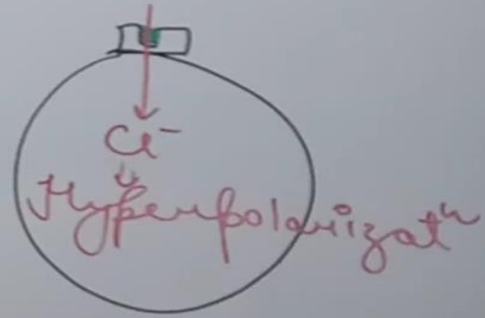
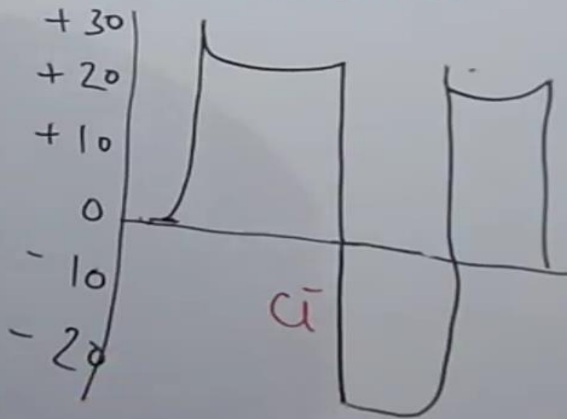
RAMELTEON
SUVOREXANT
TRICLOFLOS
MELATONIN



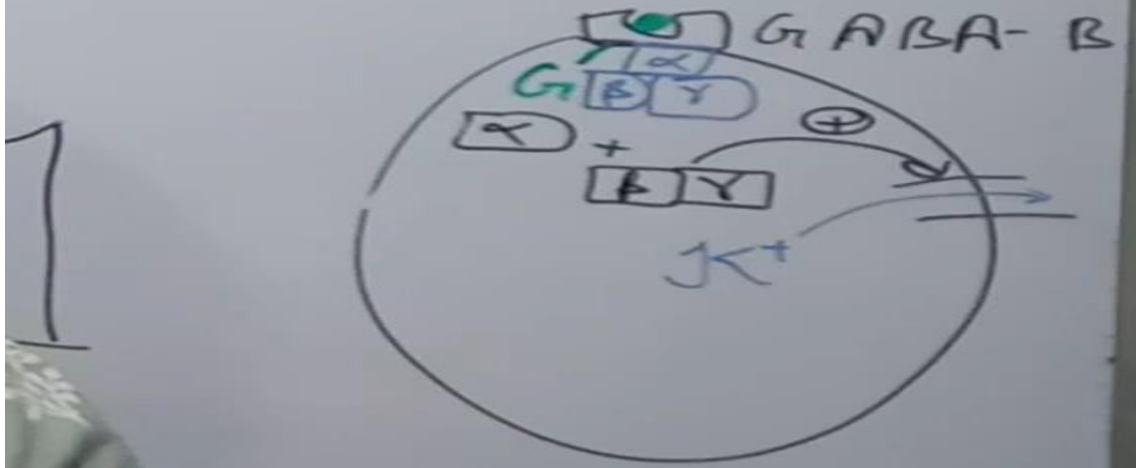
GABA

GABA-A R" GABA-B R"

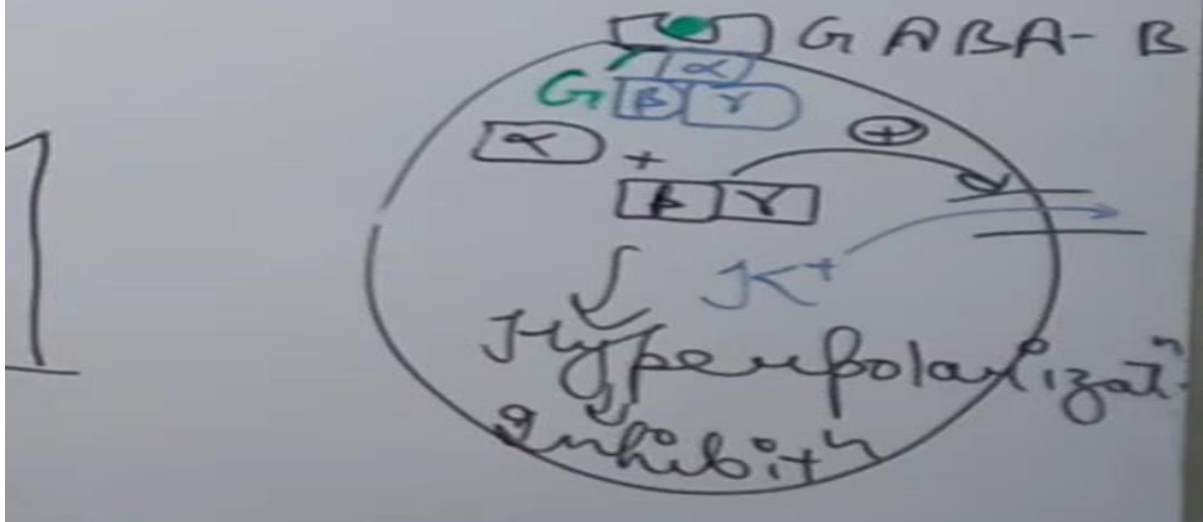
Cl^- Channel



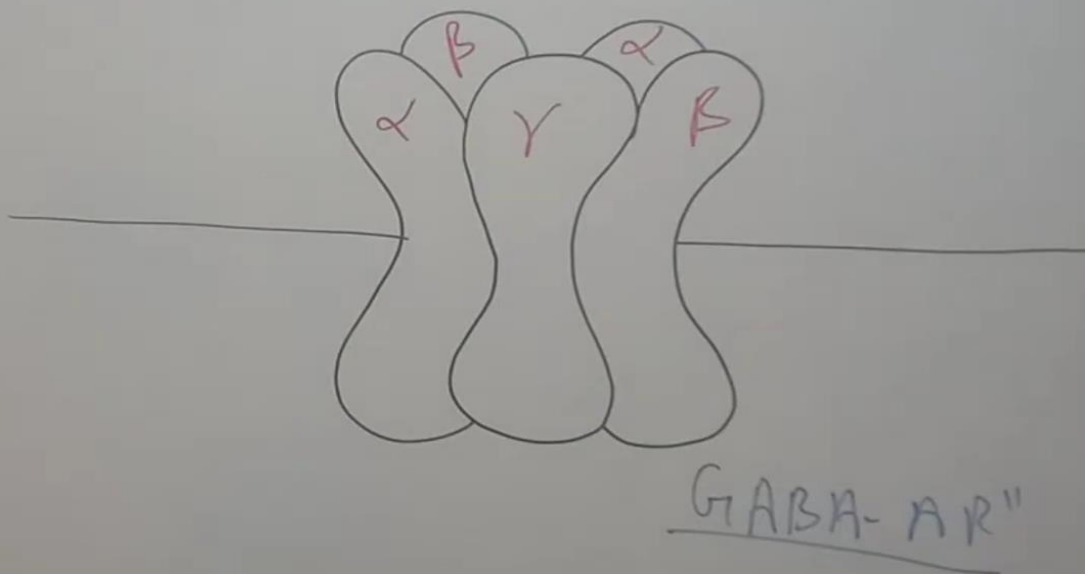
GABA-B R"



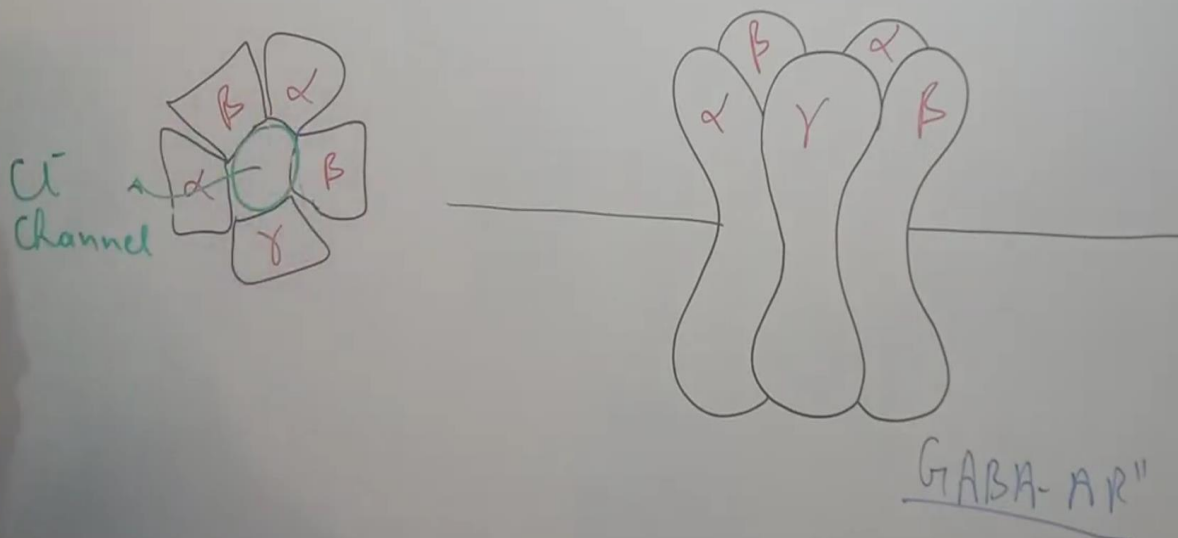
GABA-B R"



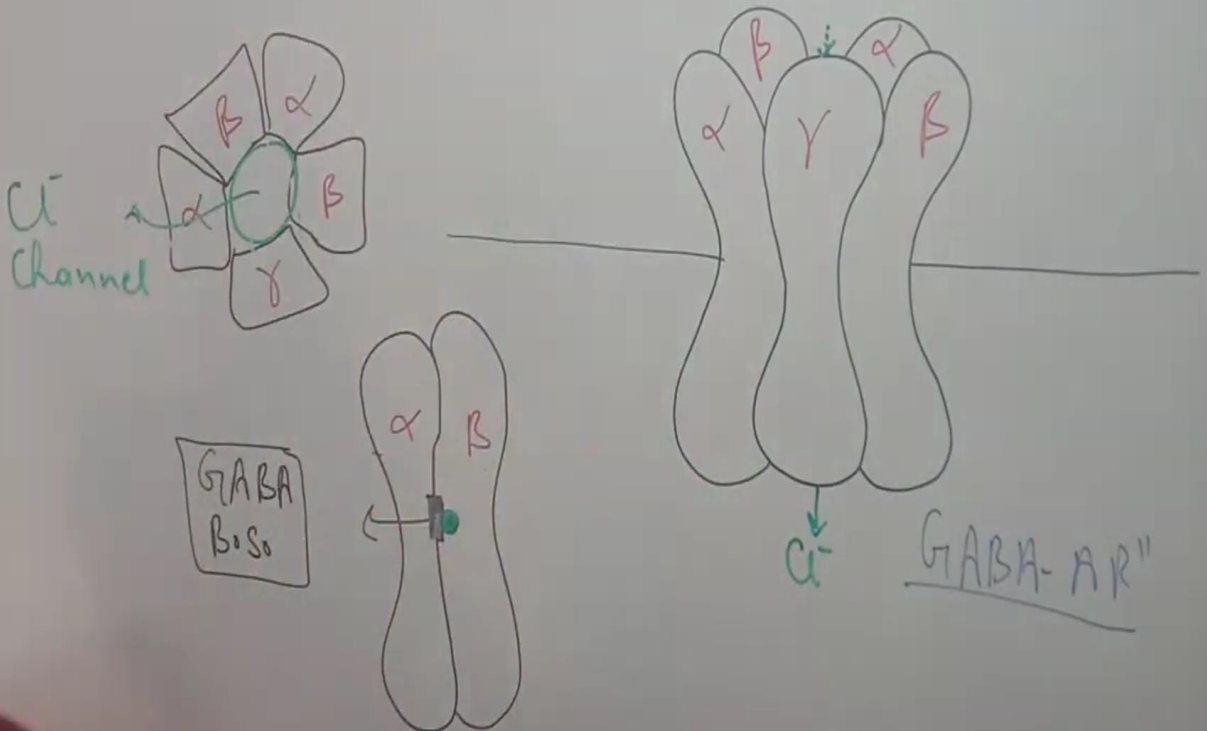
① Benzodiazepines



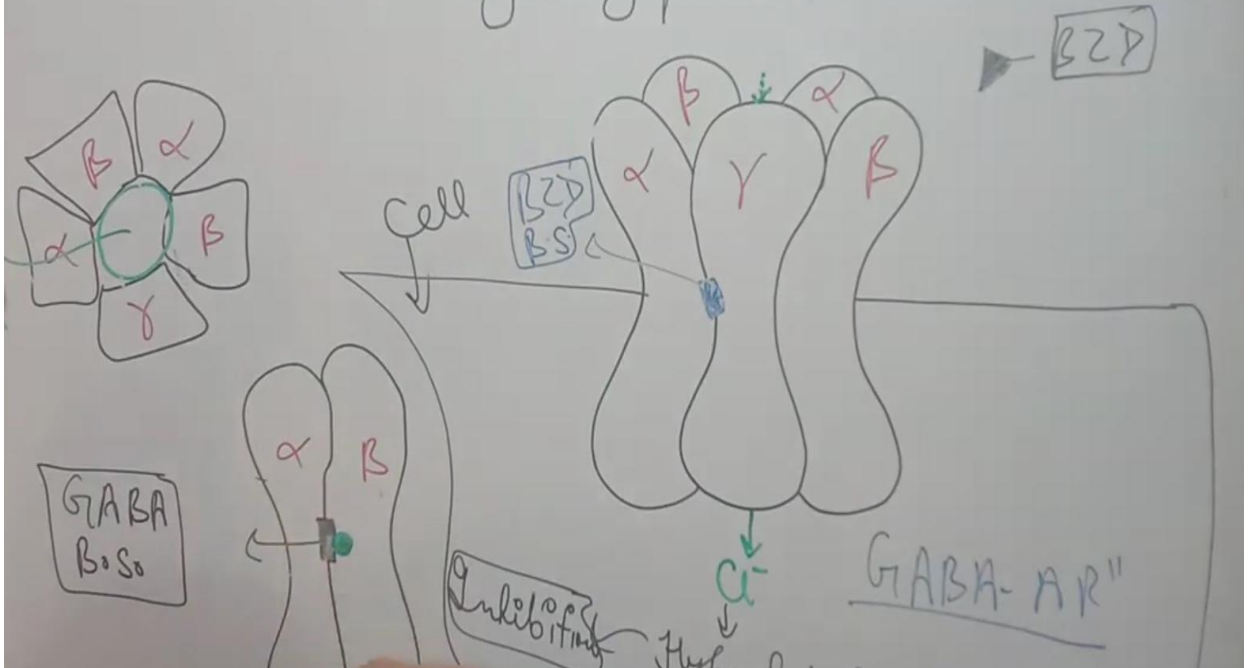
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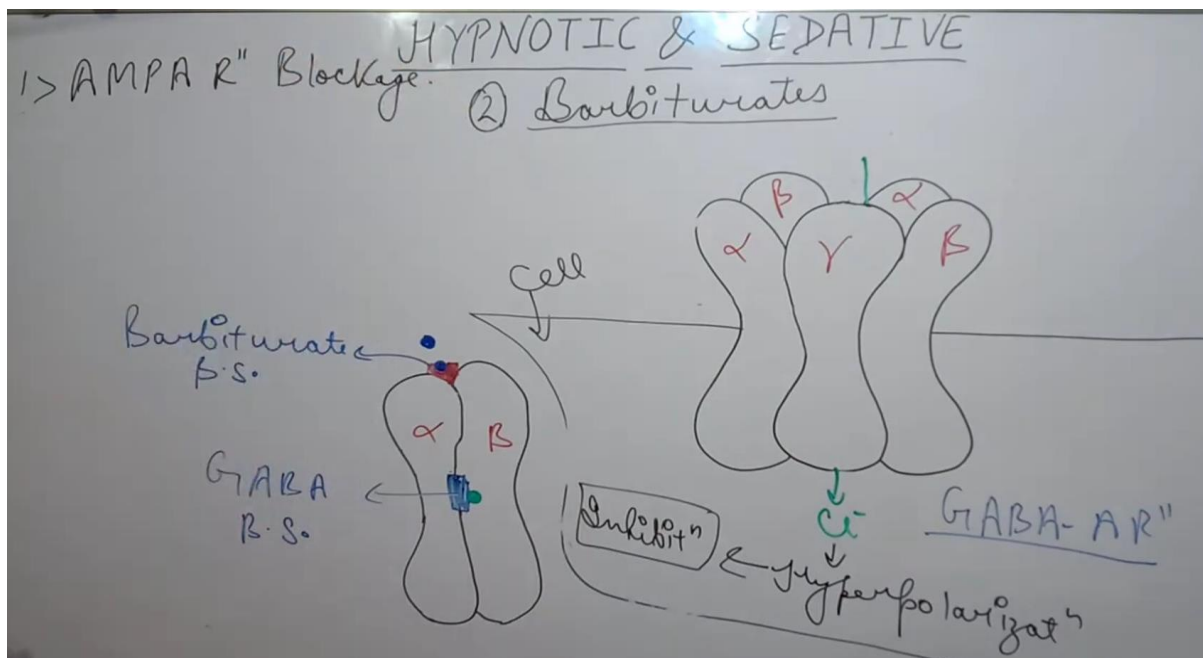


① Benzodiazepines



BZD ---- IV administration cause vasodilation

BZD---- High dose ---- neuromuscular blockage



Glutamate Bind to AMPA Rr----Na entry ---- Excitation

Barbiturate binds to AMPA Rr---- inhibit Na entry---- relaxation

$\alpha_1 \rightarrow$ Sleep Induct.

$\alpha_2/\alpha_3 \rightarrow$ Antianxiety Effect