

Sedatives and Hypnotics

.Hypnotics and sedative drugs are used to produce drowsiness and promote sleep.

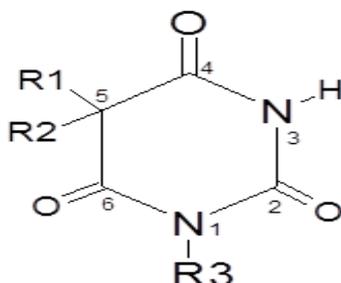
.These drugs depress the CNS.

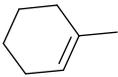
.A sedative drug decreases activity, excitements whereas a hypnotic drug produces drowsiness and facilitates the onset and maintenance of sleep as a natural sleep.

Classification

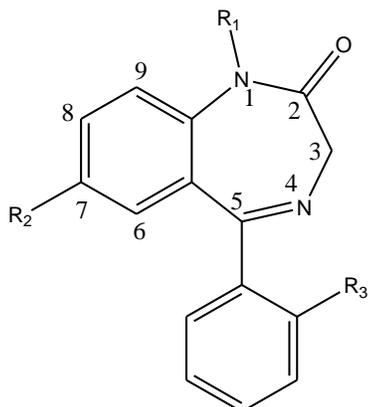
.According to chemical structures, sedative and hypnotics may be classified into following category:-

A)-**Barbiturates**:- It is a cyclic ureids.



Generic name	R ₁	R ₂	R ₃	
Barbital	-Et	- Et	-H	Long duration of action
Mephobarbital (Methyl phenobarbitone)	-Et	-C ₆ H ₅	-Me	Long duration of action
Phenobarbital	-Et	- C ₆ H ₅	-H	Long duration of action
Allobarbital	allyl	allyl	-H	Intermediate duration of action
Amobarbital	-Et	-C ₅ H ₁₁	-H	Intermediate duration of action
Probarbital	-Et	-CH(CH ₃) ₂	-H	Intermediate duration of action
Pentobarbital	-Et	-CH(CH ₃)-(CH ₂) ₂ CH ₃	-H	Short duration of action
Methohexital	-allyl	-CH(CH ₃)-C≡C-CH ₂ CH ₃	-1-Me	Short duration of action
Hexobarbital	-Me		-1-Me	Short duration of action
Thiopental (2-C=S)	-Et	-CH(CH ₃)-(CH ₂) ₂ CH ₃	-H	Ultra Short acting barbiturates

B)- Benzodiazepines:-

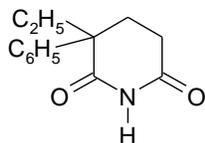


Drug	R ₁	R ₂	R ₃
Flurazepam	-CH ₂ CH ₂ N(C ₂ H ₅) ₂	-Cl	-F
Temazepam,(3-OH)	-Me	-Cl	-H
Quazepam,(2-C==S)	-CH ₂ CF ₃	-Cl	-F

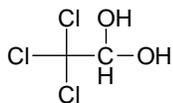
C)- Non-Barbiturates and Non- Benzodiazepines:-

Ex.-

- Glutethimide



- Chloral hydrate



- Paraldehyde

