# **Sedatives and Hypnotics**

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#### Introduction

- Sedatives are drugs which exert quieting effect accompanied by relaxation and rest but do not necessarily induce sleep. These are generally used for reducing excitement. On the other hypnotics are drugs which induce sleep.
- ❖ Both hypnotic and sedative properties reside in the same drug, a large dose of a drug may act as hypnotic, whereas a small dose of the same drug acts as sedative.
- ❖ Sedatives and hypnotic drugs are frequently used in psychiatry and also for preanaesthetic medication.
- Prolonged use of these drugs results in habituation and dependence.

#### Sedatives and hypnotics are classified chemically as

Barbituric acid derivatives



#### ✓ Intermediate acting barbiturates (2-6 h)

$$H_3C$$
 $C_2H_5$ 
 $NH$ 
 $C_2H_5$ 
 $NH$ 
 $C_2H_3$ 
 $C_2H_5$ 
 $NH$ 
 $C_2H_3$ 
 $C_2H_3$ 
 $C_2H_3$ 
 $C_2H_3$ 
 $C_2H_3$ 
 $C_2H_3$ 
 $C_3H_3$ 
 $C_3H_3$ 

butobarbital

Amobarbital

✓ Short acting barbiturates (1-2 h)

$$C_2H_5$$
 $C_2H_5$ 
 $C_2H_5$ 
 $C_3$ 
 $C_3$ 
 $C_4$ 
 $C_4$ 
 $C_5$ 
 $C_4$ 
 $C_5$ 
 $C_4$ 
 $C_5$ 
 $C_5$ 
 $C_7$ 
 $C_8$ 
 $C$ 

Pentobarbital

Secobarbital

✓ Ultra short acting barbiturates (0.5-1 h) Thiopental, Methohexital

# Benzodiazepine derivatives:

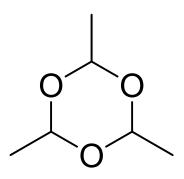
## Lorazepam

$$O$$
 $N$ 
 $N$ 

Zolpidem

## • Aldehyde derivatives:

Triclofos sodium



Paraldehyde

## • Piperidinedione derivatives:

#### Alcohol and their derivatives

$$H_2N \longrightarrow O \longrightarrow O \longrightarrow NH_2$$

Ethchlorvynol