



# **SNS COLLEGE OF ALLIED HEALTH SCIENCES**

SNS Kalvi Nagar, Coimbatore - 35

Affiliated to Dr MGR Medical University, Chennai



**DEPARTMENT : OPERATION THEATRE AND ANAESTHESIA  
TECHNOLOGY**

**COURSE NAME : PHARMACOLOGY**

**UNIT : SEDATIVES I ANXIOLYTICS**

**TOPICS : DIAZEPAM, MIDAZOLAM, PHENERGAN,  
LORAZEPAM, CHLOROPROMAZINE, TRICHLOPHO**



## SEDATIVES I ANXIOLYTICS



- Sedatives are drugs that induce relaxation and calmness by reducing the activity of the central nervous system. They may cause drowsiness and can be used to promote sleep.
- Anxiolytics are medications specifically designed to reduce anxiety and alleviate symptoms associated with anxiety disorders.



# DIAZEPAM



**Class:** Benzodiazepine

**Mechanism of Action:** Enhances the effect of the neurotransmitter gamma-aminobutyric acid (GABA) by binding to its receptor, leading to anxiolytic, sedative, and muscle relaxant effects.



**Pharmacodynamics:**  
GABAergic modulation.

**Pharmacokinetics:**  
Rapidly absorbed, metabolized in the liver, and excreted in the urine.



**Indications:** Anxiety disorders, muscle spasms, seizures, alcohol withdrawal.

**Contraindications:** Allergy to benzodiazepines, acute narrow-angle glaucoma.

**Side Effects:** Drowsiness, dizziness, dependence with long-term use.



# MIDAZOLAM



**Class:**

Benzodiazepine

**Mechanism of Action:**

Similar to diazepam; enhances the effect of GABA.



## **Pharmacodynamics:**

GABAergic modulation.

## **Pharmacokinetics:**

Rapid onset and short duration of action; undergoes hepatic metabolism.



**Indications:** Sedation before medical procedures, induction of anesthesia.

**Contraindications:** Allergy to benzodiazepines, acute narrow-angle glaucoma.

**Side Effects:** Respiratory depression, drowsiness, amnesia.





# PROMETHAZINE (PHENERGAN)



## **Class:**

Antihistamine, antiemetic, and sedative.

## **Mechanism of Action:**

Blocks histamine receptors; has sedative and antiemetic properties.



## **Pharmacodynamics:**

Antagonizes histamine receptors.

## **Pharmacokinetics:**

Metabolized in the liver and excreted in the urine.



**Indications:** Allergic reactions, nausea and vomiting, sedation.

**Contraindications:** Respiratory depression, use in children under 2 years old.

**Side Effects:** Drowsiness, dry mouth, blurred vision.



# LORAZEPAM



**Class:**

Benzodiazepine

**Mechanism of Action:**

Enhances GABAergic neurotransmission.



**Pharmacodynamics:**  
GABAergic modulation.

**Pharmacokinetics:**  
Rapidly absorbed, metabolized in the liver, excreted in the urine.



**Indications:** Anxiety disorders, status epilepticus, sedation before medical procedures.

**Contraindications:** Allergy to benzodiazepines, narrow-angle glaucoma.

**Side Effects:** Drowsiness, dizziness, respiratory depression.



# LORAZEPAM



## **Class:**

Typical antipsychotic

## **Mechanism of Action:**

Blocks dopamine receptors.



**Pharmacodynamics:**  
Dopaminergic blockade.

**Pharmacokinetics:**  
Metabolized in the liver.





**Indications:** Schizophrenia, acute manic episodes, nausea and vomiting.

**Contraindications:** Severe central nervous system depression, comatose states.

**Side Effects:** Extrapyramidal symptoms, sedation, weight gain.



# ASSESSMENT



- What is the Mechanism of Action of Midazolam ?
- What all are the Contraindications of Lorazepam ?