



GENERAL ANAESTHETICS



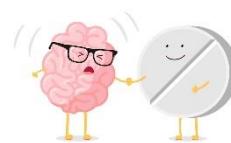
DRUG	MECHANISM OF ACTION	USES	STORAGE CONDITIONS	TYPES OF FORMULATIONS	BRAND NAMES
Thiopental Sodium - IV Anaesthetic - Thiobarbiturate derivative	Binds with GABA-A receptors and prolong the opening duration of Cl ⁻ ion channel	<ul style="list-style-type: none"> - Sole anaesthetic agent for short procedures - Preanesthetic agent - For supplementing regional anaesthesia 	<ul style="list-style-type: none"> - Stable for 6 days at 22°C - Beyond 7 days at 3°C 	<ul style="list-style-type: none"> ○ Injection ○ Powder ○ Solution 	<ul style="list-style-type: none"> ○ Thiosol ○ Thiojex ○ Pentothal ○ Pentone
Ketamine Hydrochloride - IV Anaesthetic - Cyclohexane ring	NMDA receptor antagonist	<ul style="list-style-type: none"> - Anaesthetic agent for diagnostic and surgical procedures - Preanaesthetic agent 	2-8°C	○ Liquid solution	<ul style="list-style-type: none"> ○ Ketalar ○ Ketmin
Propofol - IV Anaesthetic - Alkyl phenol derivative	Enhances the inhibitory function of GABA via GABA-A receptors	<ul style="list-style-type: none"> - Sedative 	4-22°C	<ul style="list-style-type: none"> ○ Emulsion ○ Suspension ○ Injection 	<ul style="list-style-type: none"> ○ Propoven ○ Diprivan



SEDATIVE AND HYPNOTIC

Diazepam - Benzodiazepine derivative	Nonspecifically binds with BDZ receptors. BDZ receptors couple with GABA receptors. Enhances the effect of GABA by increasing its affinity with GABA-A receptors.	- Severe anxiety disorders - Managing insomnia for short term sedative	4-30°C for 90 days	<ul style="list-style-type: none">○ Tablets○ Oral solution○ Rectal gel○ Injection	<ul style="list-style-type: none">○ Diastat○ Valium○ Diastat Acugel
Alprazolam - Triazolo Benzodiazepine derivative	Nonspecifically binds with BNZ ₁ & BNZ ₂ receptors. BNZ ₁ & BNZ ₂ receptors bind with GABA-A receptors. Enhances the effect of GABA by increasing its affinity with GABA-A receptors.	- Managing anxiety - Panic disorders	20-25°C	<ul style="list-style-type: none">○ Tablets	<ul style="list-style-type: none">○ Alprazolam Intensol○ Xanax○ Xanax XR
Nitrazepam - Benzodiazepine derivative	Inhibits GABA-A receptors Enhances GABA binding activity	- Severe anxiety - Panic disorder - Insomnia - Seizure	15-30°C	<ul style="list-style-type: none">○ Tablets	<ul style="list-style-type: none">○ Nitrazepam○ Nitrazadon
Phenobarbital - Barbituric acid derivative	<ul style="list-style-type: none">- Binds to inhibitory GABA-A receptors- Decrease excitatory transmitter release by inhibiting Ca²⁺ channels	- Sedative - Hypnotic	15-30°C	<ul style="list-style-type: none">○ Oral elixir○ Oral tablet	<ul style="list-style-type: none">○ Luminal○ Solfoton

ANTIPSYCHOTICS



Chlorpromazine - Phenothiazine derivative	Blocks post synaptic D ₂ Dopamine receptors	- Schizophrenia - Maniac depressive illness - Severe behavioral problems in children	- Oral solution, tablet, injection: <40°C - Suppositories: 15-30°C	○ Injection ○ Oral solution ○ Tablet	○ Ormazine ○ Thorazine ○ Thorazine Spanzule
Haloperidol - Butyrophenone derivative	Antagonizes the action of Glutamic acid in extrapyramidal system	- Acute psychosis - Hyperactivity - Aggression - Acute delirium - Behavioral disorders in children	20-25°C	○ Tablet ○ Oral concentration	○ Haloperidol LA ○ Peridot
Risperidone - Atypical neuroleptic/ Atypical antipsychotic	Inhibits 5-HT _{2A} and D ₂ receptors	- Schizophrenia - Mood disorders - Bipolar disorder - Depression with psychosis	Room temperature	○ Tablet ○ Oral suspension	○ Risperidol ○ Perseris
Sulpiride - Substituted benzamide	Blocks D ₁ and D ₂ receptors	- Schizophrenia	Cool and dry place	○ Tablet ○ Solution ○ Capsule	○ Espiride ○ sulpor

Olanzapine - Atypical neuroleptic - Thieno Benzodiazepine derivative	- Antagonize D ₁ , D ₂ and D ₃ receptors in brain - Blocks 5HT _{2A} , 5HT _{2C} , 5HT ₃ and 5HT ₆ receptors.	- Schizophrenia - Bipolar disorder	20-25°C	○ Tablet	○ ZyPREXA ○ ZyPREXA Zydis
Quetiapine - Atypical neuroleptic	Blocks D ₂ and 5HT _{2A} receptors	- Schizophrenia - Bipolar disorder	15-30°C	○ Tablet ○ Capsule	○ SEROquel ○ SEROquel XR
Lurasidone - Atypical neuroleptic	Blocks D ₂ and 5HT _{2A} receptors	- Schizophrenia - Depressive episode associated with bipolar I disorder	Room temperature	○ Tablet	○ Latuda

ANTICONVULSANTS



Phenytoin - Imidazolidine dione/ Hydantoin derivative	Enhances Na ⁺ channel inactivation	- Status epilepticus - Trigeminal neuralgia - Cardiac arrhythmia - Generalized tonic-clonic seizures - Complex partial seizures	Room temperature	○ Capsules ○ Tablets ○ Oral suspension ○ Injection	○ Phenytoin sodium ○ Dilantin
--	---	---	------------------	---	----------------------------------

Carbamazepine - Dibenzazepine derivative	Enhances Na ⁺ channel inactivation	- Epilepsy - Pain related to true trigeminal neuralgia	Room temperature	○ Capsules ○ Tablets ○ Oral suspension	○ Carbamazepine Chewtabs ○ Carbamazepine CR
Clonazepam - Benzodiazepine derivative	Effects of GABA are potentiated by allosteric interactions between central BDZ & GABA receptors	- Myotonic, Myoclonic, Absence & Petitmal variant seizures	15-30°C	○ Tablet ○ Solution	○ Klonopin ○ Rivotril
Valproic acid - Fatty acid - 2 propyl pentanoic acid	Valproate ions bind and inhibit GABA transaminase enzyme and increases the concentration of GABA in brain	Mania, Absence, Tonic-clonic & Complex partial seizure	15-30°C	○ Capsule ○ Syringe ○ Injection	○ Valproate sodium ○ Depacon
Gabapentin - GABA Analogue - Cyclohexane	Interact with Voltage sensitive Ca ²⁺ channels and increases synaptic concentration of GABA	- Partial seizure	At 4°C-stable for 6 days	○ Capsule ○ Solution ○ Tablet ○ Suspension	○ Gabarone ○ Neurontin
Topiramate - Newer anticonvulsant	- Stimulates GABA-A receptor activity (inhibitory neuronal activity) at brain non BDZ receptor sites - Reduces Glutamate activity (stimulatory neuronal activity) at both AMPA & Kainate receptors	- Seizure	Room temperature	○ Tablet ○ Capsule	○ Topamax ○ Topamax sprinkle

Vigabatrin - GABA Analogue	GABA Transaminase inhibitor	- Refractory complex partial seizure	- Oral syringes: 20-25°C - Powder: Room temperature	○ Tablet ○ Powder	○ Vigadronne ○ Sabril
Lamotrigine - Phenyl triazine derivative	Enhances Na ⁺ channel inactivation	- Epileptic seizure	Room temperature	○ Tablet	○ Lamictal



ANTIDEPRESSANTS

Amitriptyline Hydrochloride - Tricyclic antidepressants (TCA) - Dibenz cycloheptane ring	Inhibits Norepinephrine and Serotonin reuptake in adrenergic and serotonergic neurons	- Anxiety accompanied by depression	20-25°C	○ Tablet ○ Oral Solution	○ Elavil ○ Tryptizol
Imipramine Hydrochloride - Tricyclic antidepressants (TCA) - Dibenzazepine ring	Inhibits Norepinephrine and Serotonin reuptake by nerve cells	- Endogenous depression	Room temperature	○ Capsule ○ Tablet	○ Tofranil

Fluoxetine - Selective Serotonin Reuptake Inhibitor (SSRI) - Atypical antidepressant	Blocks the reuptake of serotonin at the serotonin reuptake pump of neuronal membrane	- Endogenous depression - Obsessive compulsive disorder	15-30°C	<input type="radio"/> Capsule <input type="radio"/> Tablet <input type="radio"/> Solution	<input type="radio"/> Act Fluoxetin <input type="radio"/> Prozac
Venlafaxine - Selective Serotonin and Norepinephrine Reuptake Inhibitor (SSNRI)	Inhibits the reuptake of both Norepinephrine and Serotonin	- Major depression - Anxiety - Panic disorder	Cool and dry place	<input type="radio"/> Capsule <input type="radio"/> Tablet	<input type="radio"/> Effexor
Duloxetine - Selective Serotonin & Norepinephrine Reuptake Inhibitor (SSNRI)	Inhibits neuronal Serotonin and Norepinephrine reuptake	- Major depressive disorder - General anxiety disorder	-20°C	<input type="radio"/> Capsule <input type="radio"/> Tablet	<input type="radio"/> Cymbalta <input type="radio"/> Drizalma sprinkle <input type="radio"/> Irenka
Sertraline - Selective Serotonin Reuptake Inhibitor (SSRI)	Reuptake of serotonin at presynaptic neuronal membrane gets inhibited	- Major depressive disorder - Social anxiety disorder - Obsessive compulsive disorder - Panic disorder - Post-traumatic stress disorder - Premenstrual dysphoric disorder	20-25°C	<input type="radio"/> Tablet <input type="radio"/> Oral concentration	<input type="radio"/> Zoloft

Citalopram - Selective Serotonin Reuptake Inhibitor (SSRI)	Inhibits neuronal Serotonin reuptake	- Depression	Room temperature	<input type="radio"/> Tablet <input type="radio"/> Oral Solution	<input type="radio"/> CeleXA
Fluvoxamine - Selective Serotonin Reuptake Inhibitor (SSRI)	Inhibits neuronal Serotonin reuptake	- Obsessive compulsive disorder	15-30°C	<input type="radio"/> Capsule <input type="radio"/> Tablet	<input type="radio"/> Luvox
Escitalopram - Selective Serotonin Reuptake Inhibitor (SSRI)	Reuptake of serotonin at presynaptic neuronal membrane gets inhibited	- Major depressive disorder - Generalized anxiety disorder - Obsessive compulsive disorder	Room temperature	<input type="radio"/> Tablet	<input type="radio"/> Cipralex <input type="radio"/> Lexapro
Paroxetine - Selective Serotonin Reuptake Inhibitor (SSRI)	Reuptake of serotonin at presynaptic neuronal membrane gets inhibited	- Major depressive disorder - Obsessive compulsive disorder - Panic disorder - Social phobia - Premenstrual dysphoric disorder	15-30°C	<input type="radio"/> Tablet	<input type="radio"/> Paxil <input type="radio"/> Paxil CR