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| **Class: Barbiturates** | | | | | |
| **Generic Name:**[phenobarbital](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=037c7532-7688-44fd-8c76-d25e8adf5fb5)  **Prototype/Brand Name:** Phenobarb  **Mechanism:** Alters cerebellar function and depresses actions of the brain and sensory cortex. | | | | **Therapeutic Effects:**   * Reduction in seizures * Sedation | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Orally, IM, or IV * **Taper dose, do not stop abruptly** | * When sedation is needed * Seizures. | * Severe renal and hepatic disorders. * Severe respiratory depression, dyspnea, or airway obstruction; porphyria. * Not for children under 1 month. * Not for use in pregnancy. * Avoid in geriatric clients. | * CNS depression; **overdosage can cause death** * **May cause suicidal thoughts or behavior** * Respiratory depression * GI: Nausea and vomiting | | * Take as directed. * May be habit forming * **Do not take with other CNS depressants or alcohol** |

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| **Class:** Benzodiazepines | | | | | |
| **Generic Name:** [lorazepam](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=ad2a0633-50fe-4180-b743-c1e49fc110c6)  **Prototype/Brand Name:** Ativan  **Mechanism:** Binds to specific GABA receptors to potentiate the effects of GABA. | | | | **Therapeutic Effects:**   * Reduced anxiety * Reduced seizure activity | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * SL, PO, IV * Use cautiously in elderly and (may have paradoxical impacts) * Consider smaller dose for liver dysfunction | * To relieve anxiety, reduce seizure activity, or as a preanesthetic | * Severe hepatic impairment; respiratory depression; acute narrow angle glaucoma. * Pregnancy and lactation. * Not for children under 12 | * Oversedation and drowsiness * **Potentially Fatal: Respiratory depression** * **Overdosage can cause coma and death**   **SAFETY:** Unsteadiness and fall risk. Concomitant use of benzodiazepines and opioids may result in profound sedation, respiratory depression**, coma, and death**. Flumazenil used for overdose | | * Monitor for falls risk * Take as prescribed * Do not stop taking drug (in long-term therapy) without consulting health care provider. * Avoid operating motor vehicle or heavy machinery * Do not consume alcohol |

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| **Class: CNS Stimulant** | | | | | |
| **Generic Name:** [methylphenidate](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1f8983ce-71b8-4c62-830d-e4692ddededa)  **Prototype/Brand Name:** Ritalin, Concerta  **Mechanism:** Thought to block the reuptake of norepinephrine and dopamine into the presynaptic neuron. | | | | **Therapeutic Effects:**  Increased mental focus and attention | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Administer in the morning. * Do not crush or chew * Safe for use over the age of 6 * Avoid with CVS disease | * Attention deficit disorders | * Use of an MAOI within 14 days * Cardiac disease * Pregnancy and lactation | * *Serious side effects*: **Cardiac and perfusion. Priapism. Mania/ psychosis** * *Common side effects:* headache, insomnia, upper abdominal pain, decreased appetite, and anorexia. Gynecomastia * May slow growth in pediatric clients   **SAFETY:** High misuse potential. Monitor BP and HR. Monitor growth/wt in children. | | * **Controlled substance** * Parent teaching * Clients should avoid alcohol * Monitor for misuse |

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| *Comparing Types of Anti-Depressants* | | | | | | |
| **Class** | **Generic Prototype (Brand)** | **Mechanism** | **Indication & Therapeutic Effect** | **Contraindications** | **Side Effects** | **Administration and**  **Nursing Considerations** |
| Tricyclic antidepressants (TCA) | * [amitriptyline](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=a4d012a4-cd95-46c6-a6b7-b15d6fd5269d) (Elavil) * [nortriptyline](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1e0060e6-8c5f-4ddf-8a11-6d158c412f5d) (Aventyl) | Inhibits presynaptic reuptake of NE and 5-HT | * Treat depression and insomnia. * Chronic neuropathic pain | * MI & CVS disease * **Pregnancy, lactation**. * **glaucoma, urine retention, BPH, GI/GU surgery.** * **Hx of seizures.** * **Hepatorenal diseases.**   *Drug Interaction:*   * Cimetidine, fluoxetine, ranitidine * Anticoagulants * MAOIs | * Anticholinergic effects * CVS effects * Sedation * Sexual dysfunction * Altered seizure threshold   **SAFETY:** Increased risk of suicidality | * Taper for D/C * Monitor orthostatic BP * Effect may take 4 wks * Caution for hepato/renal toxicity * give at bedtime * **Immediately report S&S of suicidality** |
| Selective serotonin reuptake inhibitors (SSRIs) | * [fluoxetine](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=9de65da4-73f8-4c88-8198-c92e63224ddb) (Prozac) * [citalopram](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=2632b547-2e13-447f-ac85-c774e437d6a8) (Celexa) * [sertraline](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=8c8bcba9-eaeb-aa44-f9ea-b580de55a439) (Effexor) | Inhibits reuptake of serotonin. | * Primarily used to treat depression, * Also, for OCD, and other forms of anxiety and stress disorders | * Contraindicated with MAOIs * Use caution with liver dysfunction   *Drug Interaction:* Caution with use of NSAIDS and other drugs that affect coagulation | * Rash, mania, seizures, decreased appetite and weight, increased bleeding, anxiety, insomnia, photosensitivity   **SAFETY:** Increased risk of s**uicidality** and **serotonin syndrome**. | * Taper for D/C * Orthostatic BP * Effect may take 12 wks * May cause drowsiness * No alcohol/CNS depressants. * **Immediately report S&S suicidality or serotonin syndrome** * Avoid grapefruit |
| Serotonin norepinephrine reuptake inhibitors (SNRIs) | [venlafaxine](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6c7c6190-b35f-4228-ba3d-2cb3149c81b3) (Effexor) | inhibits the reuptake of serotonin and norepinephrine, with weak inhibition of dopamine reuptake. | For treatment of a major depressive disorder. | * Contraindicated with MAOIs * Caution with use of NSAIDS and other medications that affect coagulation * Caution in elderly | * CVS effects: sustained high BP, high cholesterol * Rash, mania, decreased appetite and weight, increased bleeding, anxiety, insomnia, * Somnolence * Nausea and constipation   **SAFETY:** Increased risk of **suicidality** and **serotonin syndrome**. | * Taper for D/C * Effect may take 8 wks * May cause drowsiness * No alcohol/CNS depressants. * **Immediately report S&S suicidality or serotonin syndrome** * Avoid grapefruit * Caution for hepato/renal toxicity |
| Monoamine oxidase inhibitors (MAOI) | [tranylcypromine](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6a0b609b-0625-4c26-91a1-59ee3ece3ddf) (**Parnate)** | Inhibits the enzyme monoamine oxidase therefore allowing for increased levels of norepinephrine, dopamine, epinephrine, and serotonin. | Major depressive disorder in adults who have not responded a to other antidepressants. | * Contraindicated with SSRIs, SRNIs, and many other drugs * Caution in elderly * Pregnancy, lactation, children   *Food interaction:* foods containing tyramine | * mania, decreased appetite and weight, * drowsy/restless * Hepatotoxicity * Seizures * Hypoglycemia in diabetic clients   **SAFETY:** Increased risk of **suicidality, serotonin syndrome and hypertensive crises.** | * Taper for D/C * Effect may take 4 wks * May cause drowsiness * No alcohol/CNS depressants. * **Immediately report S&S suicidality, serotonin syndrome, hypertensive crises** * caution with liver dysfunction * Avoid tyramine |

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| **Class: Antimanic** | | | | | |
| **Generic Name:** [lithium](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=42bed965-4b8f-4471-bcc9-091f87238653)  **Prototype/Brand Name:** Lithane**,** Carbotlith,  **Mechanism:** alters sodium transport in nerve and muscle cells to shift toward intraneuronal metabolism of catecholamines. specific biochemical mechanism in mania is unknown. | | | | **Therapeutic Effects:**   * Reduce symptoms of manic episode * Reduced frequency and intensity of manic episodes | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Monitor for signs of lithium toxicity * Monitor serum lithium and sodium levels | * Treatment of manic episodes of bipolar disorder * Maintenance for individuals with a bipolar disorder. | * Renal and CVS disease * Dehydration and use of diuretics. * Children under 12 * Pregnancy and lactation | * **Lithium toxicity (can cause sudden death)** * Hyponatremia * Tremor * Cardiac arrhythmia * Polyuria * Thirst * Dizzy and drowsy * Weight gain   **SAFETY**: S&S of lithium toxicity requires emergency assistance. | | * Take as directed * When given during a manic episode, symptoms may resolve in 1-3 weeks * **Must be closely monitored with a narrow therapeutic serum range of 0.6 to 1.2 mmol/L.** * Serum sodium levels should also be monitored for hyponatremia. |

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| *Comparing Types of Antipsychotics* | | | | | | |
| **Class** | **Generic Prototype (Brand)** | **Mechanism** | **Indication & Therapeutic Effect** | **Contraindications** | **Side Effects** | **Administration and**  **Nursing Considerations** |
| 1st Generation (Conventional) | [haloperidol](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=9a6dde83-1c6f-48ca-9451-90b5f2c8689d)  (Halidol) | Block dopamine receptors in certain areas of the CNS, such as the limbic system and the basal ganglia. | schizophrenia and Tourette’s disorder | Parkinson’s disease or dementia with lewy bodies.  High risk for neurotoxicity with concurrent other antipsychotics | CVS and Respiratory effects  *Severe:* **Tardive dyskinesia, neuroleptic malignant syndrome (NMS), and extrapyramidal symptoms** | * Monitor for CVS and Respiratory event * Monitor for neurotoxicity * Avoid alcohol and CNS depressants * Caution with driving * Several weeks to take effect   ***SAFETY:*** Falls related to sedation, motor instability, and postural hypotension |
| 2nd Generation (Atypical) | [risperidone](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=c0c3eeb6-8a75-0b20-2008-396e63cddcdb)  (Risperidol) | Block specific dopamine 2 receptors and specific serotonin 2 receptors, | acute manic episodes and for irritability caused by autism | High risk for neurotoxicity with concurrent other antipsychotics | Fewer adverse effects than conventional antipsychotics.  Metabolic changes such as hyperglycemia, hyperlipidemia, and wt gain. |

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| **Class: Anticonvulsant** | | | | | |
| **Generic Name:** [phenytoin](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5b17816d-5b7f-4e4b-9471-30c93822afe8)  **Prototype/Brand Name:** Dilantin  **Mechanism:** interfering with sodium channels in the brain, resulting in a reduction of sustained high-frequency neuronal discharges. | | | | **Therapeutic Effects:**   * Reduced seizure activities | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Must be administered slowly * IV: cardiac monitoring and in-line filter * caution in clients with renal or hepatic impairment. * Elderly clients may require dosage adjustment. | Decrease or prevent seizure activity | * Pregnancy * Heart block * Several drug interactions | *Common adverse reactions*: Reactions include nystagmus, ataxia, slurred speech, decreased coordination, somnolence, and mental confusion  **SAFETY: *Serious/fatal effects:* dermatologic reactions, TEN, SJS, DRESS, Hematopoietic complications, Acute hepatotoxicity** | | * Requires serum drug monitoring * Taper dose; do not stop abruptly * Monitor blood glucose closely * Avoid alcohol and CNS depressants * Must administer slowly. * Discontinue at first sign of a rash |

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| **Class: Anticonvulsant** | | | | | |
| **Generic Name:** [levetiracetam](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=c508a392-0603-477d-8a45-3ec550371111)  **Prototype/Brand Name:** Keppra  **Mechanism:** Exact mechanism unknown. May interfere with sodium, calcium, potassium, or GABA transmission. | | | | **Therapeutic Effects:**   * Reduction of seizure activity | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Monitor plasma levels for pregnant women * Use cautiously if renal impairment * Safe for children 12 and older | Adjunctive therapy in the treatment of partial onset seizures | * Clients who are suicidal * Clients with altered hematology | * Behavioral/mood changes * Somnolence, fatigue, and irritability * Coordination difficulties   **SAFETY:** *Serious/fatal effects* **Anaphylaxis or angioedema,dermatologic reactions, TEN, SJS, Hematopoietic complications,** | | * Taper dose: **do not stop abruptly or seizures may occur** * monitor carefully for suicidality during medication therapy. * Monitor for safety mobility and falls risk. |

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| **Class: Anticonvulsant** | | | | | |
| **Generic Name:** [gabapentin](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=f2d9c3de-4749-4265-a26e-50026ab46ee4)  **Prototype/Brand Name:** Neurontin  **Mechanism:** The exact mechanism of action is unknown. It is structurally like GABA but does not act on GABA receptors or influence GABA. | | | | **Therapeutic Effects:**   * Reduction in seizures * Reduction in neuropathic pain | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Administer first dose at bedtime to decrease dizziness and drowsiness * Caution in use with children and elderly | Adjunct treatment for partial seizures,  Most often used to treat neuropathic pain. | Pregnancy | * Increased suicidal ideation * **Immediately report fever, rash, and/or lymphadenopathy** * CNS depression: dizziness, somnolence, and ataxia * **DRESS**   **SAFETY:** Consider falls precautions for elderly. **Monitor closely for suicidal ideation and DRESS syndrome.** | | * Do not take within 2 hours of antacid medications. * Taper dose; do not stop abruptly * Monitor for worsening depression, **suicidal thought**s, or behavior, and/or any unusual changes in mood or behavior |

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| **Class: Antiparkinson agent** | | | | | |
| **Generic Name:** [carbidopa/levodopa](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=0caee228-12c7-437c-9ea6-06b4e51722e1)  **Prototype/Brand Name:** Sinemet  **Mechanism:** levodopa is presumably converted to dopamine in the brain. Carbidopa is combined with levodopa to help stop the breakdown of levodopa before it can cross the blood-brain barrier. | | | | **Therapeutic Effects:**   * Reduced progression of symptoms of Parkinson’s disease | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Avoid high-protein diets * Monitor hepatic, renal, and hematopoietic functions * Use in clients over 12 * If gastric irritation, eat food shortly after | To treat Parkinson’s and is usually started as soon as the client becomes functionally impaired.  Also used to treat restless leg syndrome. | contraindicated for use with MAOIs. | * Depression, suicidal ideation, hallucinations, and intense urges * Somnolence and fatigue * NMS symptoms * Dyskinesia * Discolored body fluids * Hypomobility with long-term use * Higher risk for melanoma   **SAFETY: observe carefully for depression with suicidal ideation.** | | * Can take several weeks to see effects * Taper dose when stopping * Plan mealtimes around med times * monitor for new lesions * Monitor for sudden somnolence and depression |

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| **Class: Antiparkinson agent, MAO Type B Inhibitor** | | | | | |
| **Generic Name:** [selegiline](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=ec4ac73b-63b0-4621-a64b-8257ee53c1b3)  **Prototype/Brand Name:** Eldepryl  **Mechanism:** Selegiline inhibits MAO-B, blocking the breakdown of dopamine. | | | | **Therapeutic Effects:**   * Reduction in progression of Parkinson’s disease symptoms | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| Avoid foods with tyramine | Used in conjunction with carbidopa-levodopa when clients demonstrate a deteriorating response to this treatment. | tyramine | Side effects are dose-dependent, with larger doses posing a hypertensive crisis risk if there is consumption of food or beverages with tyramine. | | * may cause increased drowsiness, dizziness, and orthostatic changes. * Report any abnormal behaviours to HCP |

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| **Class: Anti-Parkinson Agent, Antiviral** | | | | | |
| **Generic Name:** [amantadine](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=4157d9a7-a53f-4dde-b051-fe3e9a674913)  **Prototype/Brand Name:** Symmetrel  **Mechanism:** Exact mechanism unknown. Antiviral drug that acts on dopamine receptors | | | | **Therapeutic Effects:**   * Reduction in progression of Parkinson’s disease symptoms | |
| **Administration** | **Indications** | **Contraindications** | **Side Effects** | | **Nursing Considerations** |
| * Monitor renal function * Monitor mental state * Assess blood pressure | Used in the early stages of Parkinson’s disease but can be effective in moderate or advanced stages in reducing tremor and muscle rigidity. | Known hypersensitivity | * Increased suicidality and urges * CHF and peripheral edema * **Neuromalignant syndrome (NMS)** * Orthostatic hypotension * Nausea, dizziness, and insomnia * Anticholinergic side effects | | * Taper dose carefully * Monitor BP * **Monitor for suicidal thoughts or behavior, and/or any unusual changes in mood or behavior** |