|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Antihyperlipidemics | | | | | | | |
| **Hyperlipidemia**  -Hyperlipidemia = High Cholesterol = Dyslipidemia  -There are 2 types of lipids: Cholesterol and Triglycerides, the majority of cholesterol is made by the body, but the rest comes from diet.  -Not all cholesterol is bad, but there is such a thing as TOO MUCH: increased cholesterol increases the risk of atherosclerosis which then increases the risk of cardiovascular events. Atherosclerosis is the cholesterol buildup in the arteries 🡪 hardening of artery walls. Effects: increase blood pressure, increase risk of heart attack/stroke, peripheral arterial disease  -Treatment goals: decrease LDL and TG, prevention of primary and secondary cardiovascular events  Normal Values  -Low-density lipoproteins (LDL) 🡪 “Bad” cholesterol: <100 mg/dL  -High-density lipoproteins (HDL) 🡪 “Good” cholesterol: >40 mg/dL (males) and >50 mg/dL (females)  -Triglycerides (TG): <150 mg/dL | | | | | | | |
| **HMG-CoA reductase inhibitors** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Lipitor | atorvastatin | Blocks the synthesis of cholesterol by the liver by competing with hydroxymethylglutaryl (HMG-CoA) for the reductase enzyme  Most commonly referred to as “Statins” | Myalgia (muscle pain), arthralgia (joint pain),  Fatigue  Diarrhea | Myopathy/  rhabdomyolysis | | Avoid grapefruit juice  Avoid large quantiles of alcohol  Take medication at night (lovastatin, pravastatin, simvastatin) | Decrease LDL and TG, increase HDL  First line therapy for anyone with hyperlipidemia or CVD  Drug-drug interactions |
| Mevacor | lovastatin |
| Pravachol | pravastatin |
| Crestor | rosuvastatin |
| Zocor | simvastatin |
| **Fibrates** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| TriCor | fenofibrate | Decreases the circulation of triglyceride carrying particles in the blood and increases the elimination of triglycerides from the body | Headache  GI disturbances  Increase myalgia (w/statin)  Skin rash | Liver toxicity (dark urine, yellowing skin) | | Increase bleeding risk in pts taking warfarin (increase INR) | Fenofibrate > gemfibrozil  Decrease LDL and TG, increase HDL |
| Lopid | gemfibrozil |
| **Cholesterol-Absorption Inhibitor** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Zetia | ezetimibe | Inhibits absorption of cholesterol by the small intestine resulting in reduced circulation of cholesterol in the blood  Commonly used in combination with statins or fibrates | Well tolerated (headache, diarrhea, joint pain, fatigue) | Upper respiratory infection  Pharyngitis | | Take with or without food  Separate from bile acid sequestrates (ex. Cholestyramine) by 2 hours before or 4 hours after | Moderate activity as a single agent  Best add-on agent if statin alone is insufficient  Decrease LDL and TG, increase HDL |
| Antihypertensives | | | | | | | |
| **Hypertension**  -Blood pressure >130/80 systolic (top number) diastolic (bottom number)  -Risk Factors: Smoking, Diabetes, Hyperlipidemia, Overweight/obesity, lack of physical activity, Diet  -Goals: decrease blood pressure to <130/80  -Prevent complication: Left ventricular hypertrophy, heart failure, ischemic stroke, hemorrhagic stroke, myocardial infarction, CKD  Normal BP: less than 120 AND less than 80  Elevated BP: 120-129 AND less than 80  Hypertension Stage 1: 130-139 OR 80-89  Hypertension Stage 2: 140 OR higher or 90 or high  Hypertensive Crisis: higher than 180 AND/OR higher than 120 | | | | | | | |
| **CCBs: Calcium Channel Blockers** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Norvasc | amlodipine | Prevents calcium from entering cells of the heart and arteries resulting in the dilation of blood vessels (decease blood pressure) | Dizziness  Peripheral edema (DHP CCBs)  Hypotension  Flushing | Angina  MI | | Take daily, but do not double up on does  Monitor for pedal edema | 1st line agent for pts of African descent  Maximum dose of simvastatin w/amlodipine is 20 mg  Two types of CCBs:  Non-DHP CCBs: diltiazem, verapamil  DHP CCBs: amlodipine, nifedipine |
| Cardizem (CD), Cartia, Dilacor, Dilt-XR, Tiazac | diltiazem |
| Adalat CC, Nifedical XL, Procardia | nifedipine |
| Calan, Isoptin, Verelan | verapamil |
| **ACE Inhibitors: Angiotensin-converting enzyme inhibitors** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Lotensin | benazepril | Prevents the conversion of angiotensin I to angiotensin II which results in the dilation of the blood vessels | Dry cough  Dizziness  Hyperkalemia  Transient increase in SCr | Angioedema | | Avoid salt substitutes containing potassium  Take daily, but do not double up on doses | If patient is bothered by cough, may switch to an ARB  If angioedema experience with ACEI, do NOT try an ARB |
| Epaned, Vasotec | enalapril |
| Prinivil, Zestril | lisinopril |
| Zestoretic, Prinzide | lisinopril/HCTZ |
| **ARBs: Angiotensin II receptor blockers** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Cozaar | losartan | Prevents the binding to angiotensin II receptors on muscles surrounding the blood vessels resulting in vasodilation (dilation of the blood vessels) | Dizziness  Upper respiratory infection | Angioedema  Rhabdomyolysis | | Take daily, but do not double up on doses | Pts will not take an ACEI and ARB together (one or the other) |
| Diovan | valsartan |
| Hyzaar | losartan/HCTZ |
| **Beta Blockers** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Tenormin | atenolol | Blocks epinephrine and norepinephrine from binding to beta receptors allowing the heart to beat more slowly and reducing the amount of blood being pumped | Dizziness  Shortness of breath  Decreased heart rate  Mood changes (reduced anxiety) esp. with those not cardio-specific  “Beta blocker blues” |  | | Decreased exercise tolerance  Take with food to increase absorption  Take daily, but do not double up on doses | This class of drugs may mask symptoms of hypoglycemia (besides sweating)  This drug class should be tapered at discontinuation, not stopped abruptly  May counteract some inhaled respiratory medications  Some are cardio-selective and some are not (propranolol) |
| Coreg (CR) | carvedilol |
| Toprol XL | metoprolol succinate |
| Lopressor | metoprolol tartrate |
| Inderal (LA), Innopran XL | propranolol |
| **Alpha-1 Blockers** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Cardura (XL) | doxazosin | Blocks the activation of alpha receptors by norepinephrine preventing vasoconstriction | Dizziness  Orthostatic hypotension  Tachycardia | Insomnia (if used only at bedtime) | | First dose should be taken at bedtime due to the risk of orthostatic hypotension  May cause drowsiness | Avoid use in elderly (Beers Criteria)  Not really used for HTN |
| Minipress | prazosin |
| **Alpha-2 Agonists** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Catapres, Nexiclon XR, Kapvay | clonidine | Stimulates alpha receptors in the CNS and activates inhibitory neurons which results in negative feedback inhibition and ultimately a reduction in blood pressure | Dry mouth/dry eyes  Dizziness  Headache | Neurologic disturbances including hallucinations and confusion (guanfacine) | | May take with food if GI upset occurs  Do not take the ER tablets with a high fat meal (guanfacine) | Abrupt discontinuation can result in rebound hypertension (clonidine)  Patch used more frequently to decrease ADEs  Guanfacine ER also used in ADD/ADHD |
| Intuniv, Tenex | guanfacine |
| **Vasodilator** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Apresoline | hydralazine | Relaxes the smooth muscle in blood vessels causing blood vessels to dilate | Orthostatic hypotension  Tachycardia  Dizziness | Drug induced lupus syndrome | | Take with food or milk | Avoid use in the elderly (Beers Criteria)  Rarely used |
| **Glucose Lowering Medications** | | | | | | | |
| **Diabetes**  -Type 1 Diabetes Mellitus (T1DM): Body does not produce insulin; ALL patients receive insulin (“insulin-dependent”)  -Type 2 Diabetes Mellitus (T2DM): Body does not respond appropriately to insulin and does not take up glucose at a normal rate; may receive insulin or other glucose-lowering medications  -Goals of therapy (ADA): A1c <7%, fasting blood glucose 80-130 mg/dL, postprandial blood glucose <180 mg/dL  -General 1st line treatment: T1DM insulin, T2DM metformin | | | | | | | |
| **Biguanide** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Glucophage (XR), Glumetza, Riomet | metformin | Decreases hepatic glucose production, decreases intestinal glucose absorption, and improves insulin sensitivity | Diarrhea (most common)  Nausea  Vitamin B12 depletion | Black Box Warning: Lactic Acidosis | | GI effects are transient (2 weeks)  Take with food to help with nausea  Start low and go slow | 1st line medication for T2DM, max effective dose 2,000 mg, if pts cannot tolerate IR formulation can try ER  Avoid with poor renal function |
| **Sulfonylureas** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Amaryl | glimepiride | Stimulates insulin secretion from pancreatic beta cells; “continuous squeeze on the pancreas” | Hypoglycemia  Weight gain  Nausea  Photosensitivity | Hepatic toxicity | | Take 30 minutes before first meal  May cause low blood sugar  May cause hypersensitivity to sunlight | Mostly used when pts cannot afford more effective/well tolerated DM meds  Not contraindicated with sulfa allergy  Lose effectiveness over time  Avoid with G6PD deficiency |
| Glucotrol (XL) | glipizide |
| **DPP-4 Inhibitors: Dipeptidyl peptidase-4 inhibitors** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Tradjenta | linagliptin | Inhibits dipeptidyl peptidase (DPP)-4 activity preventing inactivation of glucagon-like peptide (GLP)-1 | Well tolerated  Upper respiratory infection | Joint pain  Headache  Acute pancreatitis | | Take with or without food | Contraindicated with pancreatitis |
| Januvia | sitagliptin |
| **TZD: Thiazolidinedione** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Actos | pioglitazone | Improves insulin sensitivity in muscle and liver; peroxisome-proliferator-activated receptor gamma (PPAR-) agonist | Edema (swelling)  Weight gain  Bone fractures | Bladder cancer | | Monitor for sings of heart failure  May take 6-8 weeks to see full effect | Black Box Warning: avoid in pts with heart failure  Avoid in elderly pts with osteoporosis |
| **Long-acting insulins** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Levemir | insulin detemir | Insulin that acts over ~24 hours; also, called “basal” insulin | Hypoglycemia  Weight gain  Injection site reactions | Lipohypertrophy  Lipoatrophy | | Can take any time during the day (stay consistent)  Take without regard to meals  Pick one site (arm, thigh, abdomen) and rotate around that site only | Store in the fridge; vial/syringe currently in use can be kept at room temp  Cannot be mixed in the same syringe with other insulins |
| Lantus, Toujeo | insulin glargine |
| **Rapid-acting insulins** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Novolog | insulin aspart | Insulin that acts quickly and lasts in the body for ~4-6 hours; also, called “bolus” insulin | Hypoglycemia  Weight gain  Injection site reactions | Lipohypertrophy  Lipoatrophy | | Take immediately prior to a meal (within 15 minutes)  Pick one site and rotate around that site only | Should be clear liquid  Used 1-3 times per day before meals  Used in insulin pumps |
| Humalog | insulin lispro |
| **Oral Contraceptives** | | | | | | | |
| **Contraception**  Goal: preventing fertilized egg from attaching to the uterine wall  Types of contraceptives: Barrier (ex. Condoms), chemical (ex. Spermicide), hormonal (ex. Oral contraceptives, cervical rings, intrauterine devices (IUD), implants, patches and injections) | | | | | | | |
| **Oral Contraceptives** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Ortho-Cyclen, Sprintec | norgestimate and ethinyl estradiol (monophasic) | Inhibits ovulation via negative feedback on the hypothalamus; inhibits fertilized egg from attaching to uterine wall | Spotting,  Weight gain,  Mood disturbances/  depression,  Vaginal yeast infections,  Disruption of microbial flora, Decreased absorption of certain vitamins and minerals | Increased risk of blood clots (especially with other RFs including obesity, smoking, age >35 years) | | Need to use another form of contraception during the 1st cycle  Certain antibiotics may make birth control less effective  Avoid smoking while on birth control  Take at the same time each day | Progesterone only pills (POPs): no PBO pill, active only; can use for people at increased risk for clotting |
| Tri-Cyclen, Trinessa, Tri Sprintec | norgestimate with ethinyl estradiol (triphasic) |
| **Asthma & COPD Inhalers** | | | | | | | |
| **Asthma**  -Asthma: hypersensitivity reaction from the body’s own immune system; inflammatory response  -Symptoms: shortness of breath, intense wheezing, reversible airway obstruction  -Treatment: GINA Guidelines, short acting beta-2 agonists as rescue inhaled corticosteroids, long acting beta-2 agonists, and combination inhalers as control therapy  -Goals: risk reduction and symptom control  **COPD**  -Chronic Obstructive Pulmonary Disorder (COPD): Preventable/treatable disease characterized by persistent respiratory symptoms and airflow limitation; structural damage  -Symptoms: Chest tightness, shortness of breath, cough, sputum production, minimally reversible airway of obstruction  -Treatment: GOLD Guidelines, beta-2 agonists and muscarinic agonists used as control therapy, steroids are primarily reserved for use during exacerbations  -Goals: Reduction of symptoms and risk of future exacerbations | | | | | | | |
| **LTRA: Leukotriene Receptor Antagonist** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Singulair | montelukast | Blocks the effects of leukotriene D4 in the lungs resulting in smooth muscle relaxation and decreased inflammation | Headache  Influenza  Cough | Psychiatric symptoms (agitation, depression, suicidal thoughts) | | This should be taken even when no symptoms are present  This is not intended to treat an asthma attack | Only oral option  Chewable tablets contain phenylalanine (caution in pts with phenylketonuria)  can be used in pts with allergies/allergic asthma |
| **Beta-2 Agonists** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| ProAir HFA, Proventil HFA, Ventolin HFA | albuterol  Short-acting (SABA) | Relax airway smooth muscles by stimulating beta-2 adrenergic receptors | Nervousness  Tremor/shakes  Tachycardia | Cardiomyopathy | | Albuterol is only use as needed AKA “rescue inhaler” (not a maintenance therapy when used alone)  If treatment becomes less effective for symptomatic relief contact your prescriber | A spacer can be used with a MDI to ensure receival of medication |
| “see combo” | formoterol  Long-acting (LABA) |
| “see combo” | salmeterol  Long-acting (LABA) |
| “see combo” | vilanterol  Long-acting (LABA) |
| **Antimuscarinics** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| “see combo” | ipratropium  Short-acting (SAMA) | Block bronchoconstrictor effects of acetylcholine on M3 muscarinic receptors in the airway smooth muscles  \*Also, referred to as “anticholinergics” | Dry mouth  Urinary retention  Headache/  Dizziness  Palpitations |  | | This medication is intended for daily use to achieve maximum benefit | Helps improve shortness of breath and exercise intolerance  Lacks anti-inflammatory effects |
| Spiriva | tiotropium  Long-acting (LAMA) |
| **ICS: Inhaled Corticosteroids** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Pulmicort | budesonide | Decrease migration of inflammatory mediators | Thrush (fungal infection)  Upper respiratory infection  Fatigue  Arthralgia or arthritis |  | | Not intended to be used as a rescue inhale  Rinse mouth after each use | If a bronchodilator is being used as part of inhaler regimen, use prior to inhaled steroids |
| Flovent | fluticasone |
| **Inhaled Combinations** | | | | | | | |
| **Product Brand** | | **Product Generic** | | | **MOA** | | |
| Combivent, DuoNeb | | ipratropium + albuterol | | | SAMA + SABA | | |
| Symbicort | | budesonide + formoterol | | | ICS + LABA | | |
| Advair | | fluticasone + salmeterol | | | ICS + LABA | | |
| Breo Ellipta | | fluticasone + vilanterol | | | ICS + LABA | | |
| **Anti-Anxiety** | | | | | | | |
| **Anxiety:**  -Occasional Anxiety: The general population can and does experience anxiety when faced with challenges  -Anxiety Disorder: Symptoms are chronic and severe and cause great distress, interfering with daily life and/or relationships | | | | | | | |
| **Benzodiazepines** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Xanax | alprazolam | Cause central nervous system depression to relieve anxiety symptoms  All benzodiazepines are Schedule IV controlled substances (C-IV) | Fatigue/sedation  Dizziness | Confusion  Memory & recall impairment  Respiratory depression (enhanced risk with opioids) | | Take as needed for symptomatic relief  Avoid use with alcohol  If using chronically, do not stop abruptly | Do not treat the underlying cause of anxiety  Must be tapered off slowly to prevent withdrawal symptoms |
| Klonopin | clonazepam |
| Valium | diazepam |
| Ativan | lorazepam |
| **Antihistamine** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Atarax | hydroxyzine hydrochloride | Causes sedation to relieve symptoms of anxiety | Fatigue  Dry mouth | Confusion  Memory & recall impairment  Respiratory depression | | Take as needed for symptomatic relief  Should not be used long-term | Does not treat underlying cause of anxiety  The pamoate salt form has greater anti-anxiety effect than the hydrochloride form |
| Vistaril | hydroxyzine pamoate |
| **Miscellaneous** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| BuSpar | buspirone | Mechanism is unknown, but may be due to its affinity for serotonin receptors | Dizziness  Drowsiness  Nausea  Excitement | Risk of serotonin syndrome (enhanced risk with other serotonergic agents) | | Take with or without food, but must be consistent  Takes 2-4 weeks for full effect | No potential for abuse, tolerance, or physiological dependence |
| **Antidepressants** | | | | | | | |
| **Depression**  -Symptoms: SIG-E-CAPS  **S- S**uicidal ideation  **I-** loss of **I**nterest in previously enjoyed activities  **G-** feelings of **G**uilt/shame  **E-** decreased **E**nergy  **C-** difficulty **C**oncentrating  **A-** **A**ppetite changes (over- or under-eating)  **P-** **P**sychomotor symptoms (sluggish or agitated)  **S-** **S**leep changes (insomnia or hypersomnia)  -The cause of depression is not fully understood, but it is theorized to involve a decreased amount or imbalance of neurotransmitters in the brain: dopamine, serotonin, norepinephrine | | | | | | | |
| **SSRIs: Selective Serotonin Reuptake Inhibitors** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Celexa | citalopram | Prevent the reuptake and maintaining the level of serotonin in the neuronal synapse | Sexual dysfunction  Fatigue and insomnia  Dry mouth  Headache | Hyponatremia  Bleeding (additive risk with anticoagulants)  Serotonin syndrome | | Takes 1-2 weeks to feel a benefit and 6-8 weeks for full effect on mood  Take fluoxetine in AM (most activating), paroxetine in PM (most sedating), take all others in AM; if causing sedation, take in PM | Sertraline is preferred in patients with cardiac risk  Vilazodone and vortioxetine have mixed MOAs (serotonin receptors) |
| Lexapro | escitalopram |
| Prozac | fluoxetine |
| Paxil | paroxetine |
| Zoloft | sertraline |
| Viibryd | vilazodone |
| Trintellix | vortioxetine |
| **SNRIs: Serotonin/Norepinephrine Reuptake Inhibitors** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Pristiq | desvenlafaxine | Prevent the reuptake and maintain the levels of serotonin and NE in the neuronal synapse  NE= Norepinephrine | Similar to SSRIs (serotonin effect)  Increased heart rate and blood pressure  Feeling excitable (much less sedation than SSRIs due to NE effect) | Hyponatremia  Bleeding (additive risk with anticoagulants)  Serotonin syndrome | | Takes 1-2 weeks to feel a benefit and 6-8 weeks for full effect on mood  Take in AM | Duloxetine can also be used for neurologic pain |
| Cymbalta | duloxetine |
| Effexor | venlafaxine |
| **TCAs: Tricyclic Antidepressants** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Elavil  (brand d/c) | amitriptyline | Inhibit reuptake of serotonin and NE (also block Ach and histamine receptors, leading to side effects)  NE= Norepinephrine  Ach= Acetylcholine | Orthostasis, tachycardia  Weight gain  Dry mouth, blurred vision, urinary retention, constipation (anticholinergic)  Major sedation | Overdose can cause fatal arrhythmias (QT prolongation)- monitor for suicidal ideation | | Takes 1-2 weeks to feel a benefit and 6-8 weeks for full effect on mood  Take in PM | Amitriptyline and doxepin are slightly more effective than nortriptyline, but have worse side effects |
| Silenor | doxepin |
| Pamelor | nortriptyline |
| **NDRI: Norepinephrine/Dopamine Reuptake Inhibitor** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Wellbutrin (SR, XL), Zyban (brand d/c) | Bupropion | Prevents the reuptake and maintaining the levels of dopamine and NE in the neuronal synapse  NE= Norepinephrine | Dry mouth  Insomnia, restlessness (similar to SNRIs because of NE effect)  Weight loss | Seizures (dose-related)- contraindicated in seizure disorder or anorexia/bulimia | | Takes 1-2 weeks to feel a benefit and 6-8 weeks for full effect on mood  Take in AM | Also, used for smoking cessation |
| **Miscellaneous** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Remeron | mirtazapine | TCA with alpha-2 adrenergic antagonistic effect in the CNS, increasing the release of serotonin and NE  TCA= Tricyclic Antidepressant  NE= Norepinephrine | Weight gain, increased appetite  Major sedation  Dry mouth, blurred vision, urinary retention, constipation (anticholinergic) | Agranulocytosis (life-threatening blood disorder) | | Takes 1-2 weeks to feel a benefit and 6-8 weeks for full effect on mood | Often used in oncology and skilled nursing to help with sleep and appetite stimulation |
| Desyrel | trazodone | Inhibits serotonin reuptake and blocks histamine and alpha-1 adrenergic receptors | Major sedation  Sexual dysfunction | Priapism | | Take in PM | Most often used off-label for sleep |
| **Antipsychotics** | | | | | | | |
| **Schizophrenia**  -Chronic, severe, and disabling thought disabling though disorder that affects 1 in 100 people in all societies.  -Hallucinations: sensing something that is not present  -Delusions: beliefs about something that is not true  -Disorganization: inability to focus attention, communicate **organized** **thoughts**, or behave logically  **Bipolar Disorder**  -Fluctuation of mood between depression and mania in episodes that are drastically different from the person’s usual mood and behavior  **-**Depressive Episodes: extremely sad or hopeless; same symptoms as depression  **-**Manic Episodes: elevated, overexcited, or irritable; more energy than normal | | | | | | | |
| **First Generation Antipsychotics** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Haldol | haloperidol | Block dopamine -2 receptors without a lot of effect on serotonin | Drowsiness  Dizziness  Anticholinergic effects  Irregular movements | Dysmenorrhea  Weight gain  Neuromalignant syndrome (extreme muscle rigidity, hyperthermia, mental status change) | | Pay attention to new movements or changes in mental status | Can also be used for tics and verbal outburst associated with Tourette syndrome |
| **Second Generation Antipsychotics “atypical”** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Abilify | aripiprazole | Block dopamine-2 and serotonin receptors | Sedation  Weight gain (not all)  Irregular movements | Neuromalignant syndrome (extreme muscle rigidity, hyperthermia, mental status change) | | Smoking reduces levels of clozapine and olanzapine  Invega can leave ghost tablets in the stool | Clozapine is never used sooner than 3rd line and only prescribed via REMS due to risk for extremely low WBC  REMS= Risk Evaluation and Mitigation Strategy  WBC= white blood cell |
| Clozaril | clozapine |
| Latuda | lurasidone |
| Zyprexa | olanzapine |
| Invega | paliperidone |
| Seroquel | quetiapine |
| Risperdal | risperidone |
| Geodon | ziprasidone |
| **Analgesics** | | | | | | | |
| **Pain**  -It is important to know what kind and severity of pain a patient is experiencing when deciding which analgesic, they should be given | | | | | | | |
| **Non-Steroidal Anti-Inflammatory Drugs “NSAIDs”** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Celebrex | celecoxib | Block COX-1 and COX-2 enzymes to inhibit formation of prostaglandin to decrease inflammation, relieve pain, and reduce fever  COX=Cyclooxygenase | Increased blood pressure  Photosensitivity | GI bleeding/  ulceration | | Take with food  Don’t take if cardiac issues, kidney dysfunction, or pregnant  Use sunscreen and sun-protective clothing | Celecoxib, diclofenac, and meloxicam have increased selectivity for COX-2, making their risk for GI complications lower and risk for MI/stroke higher  MI= myocardial infraction |
| Voltaren, Voltaren Gel | diclofenac |
| Advil, Motrin | ibuprofen |
| Indocin, Tivorbex | indomethacin |
| Mobic | meloxicam |
| Aleve, Naprosyn | naproxen |
| **Opioid Analgesics** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Tylenol w/ Codeine | codeine/APAP | Mu receptor agonists to primarily provide pain relief (also cause euphoria and respiratory depression) | Constipation, nausea, and vomiting  Sedation and dizziness | Itching  Tolerance and physical dependence | | Take with food or milk if upset stomach (not oxymorphone), offer prescription of naloxone  These opioids are Schedule II controlled substances (C-II) | Overdose can be reversed by the mu receptor antagonist naloxone |
| Duragesic | fentanyl (transdermal) |
| Lortab, Norco, Vicodin | hydrocodone/APAP |
| Dilaudid | hydromorphone |
| Methadose | methadone |
| Avinza, MS Contin, Kadian | morphine |
| Oxycontin | oxycodone |
| Endocet, Percocet,  Roxicet | oxycodone/APAP |
| Opana | oxymorphone |
| **Miscellaneous Analgesics** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Tylenol | acetaminophen | Mechanism not well known; reduces pain and fever | Generally well tolerated | Severe hepatotoxicity (doses over max) | | Maximum daily dose of 4,000 mg, avoid or limit use with alcohol | Comes as part of a lot of combo products, both prescription and OTC |
| Fioricet | butalbital/  caffeine/  APAP | Barbiturate depresses the sensory cortex and caffeine stimulates the CNS to relieve tension headache | Nausea  Anxiety (from caffeine) | Severe hepatotoxicity (doses over max for APAP) | | Maximum daily dose of 4,000 mg of APAP, avoid or limit use with alcohol | Use should be limited to no more than 3 days per month to avoid medication overuse headache |
| Ultram | tramadol | Mu receptor agonists that inhibits reuptake of NE and serotonin  NE=Norepinephrine | Dizziness and sedation  Constipation and nausea | Serotonin syndrome  Respiratory depression | | Can be taken with or without food  Schedule IV controlled substance (C-IV) | Lower severity of GI side effects compared to stronger opioids |
| **Local Anesthetic** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Lidoderm | lidocaine | Blocks initiation and conduction of nerve impulses by decreasing the neuronal membrane permeability to sodium ions | Possible itching  burning, rash where patch is applied | Allergic reactions | | Do not use on broke, abraded, open or severely burned skin (significantly increased absorption) | Approved for pain from shingles |
| **Anticoagulants/Antiplatelets** | | | | | | | |
| **Coagulation**  -Coagulation is the process of forming blood clots, involving **activation of platelets** and the **clotting/coagulation cascade**  -Activation of the coagulation cascade can happen via **blood vessel injury slowed/stopped blood flow**, & **prothrombotic conditions** (cancer, genetic disorders) | | | | | | | |
| **LMWH: Low Molecular Weight Heparin** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Lovenox | enoxaparin | Binds to antithrombin to help it inactivate clotting factors IIa and Xa (Xa>IIa) | Bleeding  Anemia  Injection site reactions | HIT (contraindicated if history of it), Boxed warning for hematomas in pts receiving spinal/epidural anesthesia; may result in long-term or permanent paralysis | | Don’t remove air bubble from syringe prior to injecting, can cause loss of drug  Don’t administer intramuscularly  HIT= Heparin-Induced  Thrombocytopenia | More predictable anticoagulant response than heparin, doesn’t require lab monitoring for efficacy (recommended in pregnancy) |
| **Warfarin** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Coumadin, Jantoven | warfarin | Inhibits VKORC1 enzyme, preventing product of certain clotting factors | Bleeding and bruising | Tissue necrosis/  gangrene | | Keep vitamin K intake consistent,  Consult PCP if/when starting or stopping a medication,  Do not take if pregnant | Some people have genetic variances that increase risk of bleeding (routine genetic testing is not recommended) |
| **DOACs: Direct Oral Anticoagulant** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Eliquis | apixaban | Directly inhibit clotting factors  (Apixaban and Rivaroxaban –Xa) (Dabigatran-IIa (thrombin) | GI bleeding (more with dabigatran) | Boxed warning for hematomas in patients receiving spinal/epidural anesthesia; may result in long-term or permanent paralysis | | Swallow dabigatran capsules whole, don’t crush or chew  Apixaban and rivaroxaban can be crushed and put on applesauce | No monitoring for efficacy required |
| Pradaxa | dabigatran |
| Xarelto | rivaroxaban |
| **P2Y12 Inhibitor** | | | | | | | |
| Product Brand | Product Generic | MOA | Common AE | Rare AE | | Counseling Points | Clinical Pearls |
| Plavix | clopidogrel | Prodrug that irreversibly binds to P2Y12 receptors on platelets to prevent aggregation | Bleeding | TTP (mental status change, vision changes, one-sided weakness, purple spots on skin/mouth, yellow skin, diarrhea, fast heartbeat, fever, headache)  TTP= Thrombotic Thrombocytopenic Purpura | | Do not take long-term with aspirin to prevent stroke   Avoid in combination with omeprazole and esomeprazole | Some people have genetic variances that can decrease efficacy (routine genetic testing is not recommended) |
| **Antibiotics** | | | | | | | |
| **Antibiotics**  **-**Antibiotics**:** Used to treat bacterial infections ONLY, variety of classes with different features and varied spectrums against gram negative bacteria, gram positive bacteria, anaerobic bacteria, atypical bacteria, or any combination.  -Counseling: Take with a full glass of water, take the full course, even if you start to feel better, take with food to decrease stomach upset.  -Drug Interactions: Warfarin🡪 increased bleeding risk, monitor INR closely  **-**Birth control🡪 antibiotics can decrease effectiveness, couples need to use extra protection during therapy and for one week after antibiotic ends | | | | | | | |
| **Beta-lactams** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Amoxil, Moxatag, Trimox | amoxicillin | Binds to penicillin-binding proteins (PBPs) and inhibiting the synthesis of the peptidoglycan layer of bacterial cell walls | Nausea, vomiting, and diarrhea | Rash  Yeast infection | | Avoid amoxicillin in patients with penicillin allergies | Typically, low cross-relativity with cephalosporin’s and penicillin allergies |
| Augmentin | amoxicillin/ clavulanate |
| Keflex | cephalexin |
| Omnicef | cefdinir |
| **Macrolides** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Zithromax (Z-Pak), Zmax | azithromycin | Binds to the 50S ribosomal unit, blocking transpeptidation and inhibiting protein synthesis | Nausea, vomiting, and diarrhea,  Prolonged QTc interval (caution in patients with heat issues) | Dysgeusia  Abdominal pain | | Take4 hours after or 2 hours before antacids  Often comes in a dose pack (dosing follows package instructions) | Has good activity against atypical bacteria  Use caution with other QTc prolonging agents |
| **SMX-TMP** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Bactrim, Septra | sulfamethoxazole/ trimethoprim | Sulfamethoxazole: inhibits bacterial folic acid synthesis  Trimethoprim: inhibits enzymes of the folic acid pathway | Nausea, vomiting, and diarrhea  Photosensitivity (hypersensitivity to sun exposure)  Rash | Increased potassium levels  Decreased folate levels | | Increased susceptibility to sunburn, avoid excessive sun exposure  Take with full 8 oz. of water (avoid kidney stones) | Avoid in patients with sulfa allergies  Often used for UTIs, but are useful for other infections  UTI= Urinary Tract Infection |
| **Fluoroquinolones** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Cipro | ciprofloxacin | Inhibits DNA gyrase and topoisomerase, which are essential for bacterial DNA replication | Nausea, vomiting, and diarrhea  Prolong QTc interval (caution in patients with heart issues) | Photosensitivity  Black Box Warning for spontaneous tendon rupture (Achilles) | | Increased susceptibility to sunburn, avoid excess sun exposure  Take 4 hours after or 2 hours before antacids | Use caution with other QTc prolonging agents  Can cause exacerbation of myasthenia gravis  Good activity against gram negative bacilli |
| Levaquin | levofloxacin |
| **Tetracyclines** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Vibramycin | doxycycline | Inhibits protein synthesis by binding to 30S ribosomal subunit | Nausea, vomiting, and diarrhea  Yeast infections  Discoloration of teeth (children) | Photosensitivity | | Increased susceptibility to sunburn, avoid excessive sun exposure  Take 4 hours after or 2 hours before antacids  Do not take with a glass of milk | Avoid in children less than 8 years old (unless the benefit outweighs the risk)  Activity against some atypicals |
| Minocin | minocycline |
| **Lincosamides** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Cleocin | clindamycin | Binds to 50S ribosomal subunit, preventing bacterial protein synthesis | Nausea, vomiting, and diarrhea, taste disturbance when taken orally | Rash, black box warning for C. difficile colitis | | Call your doctor if experiencing severe, watery diarrhea | Good anaerobic coverage  Sometimes used for acne (mostly topically) |
| **Antibiotic** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Flagyl | metronidazole | Interacts with DNA and causing DNA strand breaks, which inhibits protein synthesis  Good anaerobic coverage | Vomiting, diarrhea, metallic taste,  Disulfiram-like reaction (N/V, throbbing, headache, dizziness) |  | | Avoid use with alcohol (Disulfiram-like reaction) |  |
| **Antibiotic/Antiprotozoal** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Macrodantin, Macrobid | nitrofurantoin | Inactivates and alters bacterial proteins, which inhibits protein, DNA, RNA and cell wall synthesis | Nausea, headache | Increase LFTs, pulmonary toxicity | | May cause dark urine | Avoid in elderly 🡪 pulmonary toxicity  Avoid with magnesium-containing antacids  Bactericidal in urine |
| **Antibiotic (topical)** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Bactroban | mupirocin | Inhibits bacterial protein synthesis | Skin reactions (stinging, burning, itching, rash) |  | | Wash hands before and after application | Commonly used for skin and soft tissue infections |
| **Antifungals** | | | | | | | |
| **Antifungals:**  -Topical antifungals commonly used to treat fungal infections on the skin such as athlete’s foot, jock itch, ringworm, vaginal yeast infections  -Systemic antifungals can be used to treat more systemic, serious fungal infections | | | | | | | |
| **Azole Antifungals** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Diflucan | fluconazole | Inhibits ergosterol synthesis and prevents fungal cell membrane formation | Generally well tolerated, some nausea, vomiting, diarrhea, rash headache | QT prolongation, hepatotoxicity (with ketoconazole) | | Fluconazole for vaginal yeast infections 🡪 dispensed as one 150 mg tablet, take by mouth | Drug interactions (CYP inhibitors) |
| Nizoral | ketoconazole |
| **Antifungal (topical)** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Nystop | nystatin topical | Binds to sterols in fungal cell membrane, and increasing permeability 🡪 cellular contents leak | Contact dermatitis | SJS  SJS = Steven-Johnson Syndrome | |  | Prepared in units per gram |
| **Antiviral** | | | | | | | |
| **Antivirals**  -Mostly broad spectrum to target various viral pathogens, can be used as treatment for prophylaxis  **Antiretrovirals**  -Six different classes that work at different locations in the HIV replication cycle: fusion inhibitors, entry inhibitors, nucleoside reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs), integrase strand transfer inhibitors (INSTIs), protease inhibitors (PIs)  -Boosters can be included to increase efficacy of other agents | | | | | | | |
| **HIV** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Genvoya | elvitegravir, cobicistat, emtricitabine, tenofovir, alafenamide | Elvitegravir & dolutegravir: integrase inhibitor, prevents integration of proviral gene into human DNA  Cobicistat: CYP3A inhibitor, boosting levels of other antivirals  Emtricitabine tenofovir, alafenamide, abacavir, lamivudine: NRTI 🡪 inhibit reverse transcriptase | Integrase Inhibitors: renal insufficiency, nausea, diarrhea, headache  Cobicistat: hyperbilirubinemia  NRTIs: lactic acidosis and hepatic steatosis | Integrase Inhibitors: hypersensitivity reaction, increased LFTs, insomnia  Cobicistat: rash, increase LFTs  NRTIs: renal insufficiency | | NRTIs: take without regard to meals | Integrase Inhibitors: few DDIs, good initial therapy  Cobicistat: major CYP and transport DDIs, can increase SCr  NRTIs: no CYP-450 DDIs, long half-life= once daily dosing  Abacavir: hypersensitivity reactions, screen for HLAB\*5701 mutation |
| Triumeq | abacavir, dolutegravir, lamivudine |
| **Antiviral** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Valtrex | valacyclovir HCl | Valacyclovir is the prodrug of acyclovir. Acyclovir inhibits DNA synthesis and viral replication by incorporating itself into viral DNA | Nausea and abdominal pain  Neutropenia  Headache | Increased LFTs  Dehydration  Skin rash | | Encourage adequate hydration | Renally dose adjusted |
| Zovirax | acyclovir |
| **Neuraminidase Inhibitor** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Tamiflu | oseltamivir | Prodrug: inhibits neuraminidase which prevents viral progeny release from host cell | Headache  Nausea  Vomiting | Skin rash  Pain | | Patients need to be evaluated ASAP if developing flu-like symptoms to get treatment initiated | Can be used as influenza prophylaxis or for influenza treatment.  Initiate within 48 hours of symptoms onset for the best response  Renally dose adjusted |
| **GERD** | | | | | | | |
| **GERD**  -Characterized by reflux of stomach contents 🡪 causing burning, pain, irritation  -Variety of treatment options: Antacids 🡪 short-term relief, H2RAs 🡪 intermediate relief or PPIs 🡪 long-term control  -Lifestyle modifications: Avoid lying down 3 hours after a meal, raise head of bed by 6-8 inches, diet modifications | | | | | | | |
| **PPI: Proton Pump Inhibitors** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Prilosec | omeprazole | Blocks the H-K-ATPase, which prevents the release of stomach acid  Takes several days for maximal effectiveness | Nausea/vomiting/diarrhea  Malabsorption of electrolytes and nutrients | Osteoporosis and fracture risk  Kidney disease,  C. diff development | | May take several days for full effect | May prolong or decrease activity of other drugs  Most potent GERD drugs |
| Protonix | pantoprazole |
| Nexium | esomeprazole |
| Dexilant | dexlansoprazole |
| **H2As: H2-antagonist** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Pepcid | famotidine | Inhibit histamine-2 receptors in the stomach | Well tolerated | Thrombocyto-penia  Brady/  tachycardia  Asystole  AV block | | Can take 30 minutes before meals | Absorption of drugs can be altered with the use of H2As  Can be used as part of GERD regimen with PPIs |
| **Gout** | | | | | | | |
| **Gout**  -Uric acid (UA) build-up causes painful joint swelling  -Causes: kidneys not removing UA, ingesting too much purine-containing foods (organ meats, alcohol/beer, seafood), other conditions such as cancer  -Treatment is focused on treating the painful gouty attack and preventing UA buildup  -Counseling: Avoid foods high in purines (liver, kidney, anchovies, asparagus, herring, mussels, beer), maintain a healthy weight and exercise regularly, drink plenty of fluids (WATER!) | | | | | | | |
| **Xanthine Oxidase Inhibitor** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Zyloprim | allopurinol | Inhibits the enzyme (xanthine oxidase) responsible for uric acid formation | Change in taste | SJS (HLA-B\*5801 gene) | | Patients will see an increase in gouty attacks early in therapy  If patient notices any new rash once starting, they should consult their PCP | Used to prevent gouty attacks, NOT treat  Renal dose adjustments |
| Anti-Tussives | | | | | | | |
| **Anti-Tussives**  -Used to prevent coughing. DEA: combination products containing codeine are scheduled based on amount of codeine compared to other products | | | | | | | |
| **Anti-Tussives** | | | | | | | |
| **Product Brand** | **Product Generic** | **MOA** | **Common AE** | **Rare AE** | | **Counseling Points** | **Clinical Pearls** |
| Tessalon | benzonatate | Suppress cough by topical anesthetic action on the respiratory stretch receptors | Both are generally well tolerated | Codeine: monitor for respiratory depression | | Avoid codeine with other controlled substances | Benzonatate should be swallowed whole (do not crush/chew) |
| Phenergan with Codeine | promethazine HCl with codeine phosphate (V) | Suppresses cough directly by acting on the medulla |